



Teacher's Resource Guide

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•

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Bothell, WA • Chicago, IL • Columbus, OH • New York, NY

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Using the *Building Blocks Teacher's Resource Guide*

The **Teacher's Resource Guide** provides teachers with valuable tools to meet the mathematical instructional needs of preschool children.

Family Letters

These weekly communications keep families informed about what their children are doing in school and how they can help their children be successful in mathematics. Send home the Family Letters each week and encourage children to show families what they have learned.

Name _____ Date _____

WEEK 1 **Math News**

Dear Family,

This week your child was introduced to *Building Blocks*, which is designed to help young children build solid mathematics knowledge and develop thinking and reasoning skills. The main focuses of the program are number and geometry (shapes). Children will participate in activities to help them learn to see the mathematical ideas in puzzles, building with blocks, dramatic play, songs, stories, and the like.

As we progress through the school year, you will receive weekly letters such as this to inform you of our goals and achievements. In addition, the letters will include tips for math activities to do at home with your child. Some letters may even become keepsakes because each includes a space for your child to demonstrate something math-related he or she has learned in class. Please take time to review and discuss this work with your child.

Week 1 focused on introductory counting and recognizing and making groups with a small number of objects. The activities are designed to help children see that counting is more than simply saying numbers; counting relates to real objects and quantities. Understanding this concept helps children link math to their lives.

Help-at-Home Math Tips

- Look around for things that can come in pairs, such as shoes and matching chairs.
- Look for items with numerals, or written numbers, on them, such as clocks, telephones, radios, clothing labels, page numbers, and bathroom scales. Discuss the purpose of numerals with your child.
- Ask your child to count your daily pieces of mail, and then sort them into small groups. For example, have him or her sort catalogs from envelopes or plain envelopes from colored envelopes.

What's Ahead?

In Week 2, children will continue to build their basic counting skills, emphasizing that counting tells how many. They will recognize and make small groups, verify group amounts, compare small groups, and count in patterns.

Building Blocks • Teacher's Resource Guide **Family Letters • 3**

English Learner Support

The English Learner Support pages for each week provide strategies to help teachers and teacher aides work with English language learners. Preview Big Ideas with English learners at the beginning of each week. Review the access vocabulary and cognates to develop language proficiency.

WEEK 1

English Learner Support

Preview Big Ideas

When content lessons are taught mainly in English, an excellent strategy to maximize comprehension is to identify preview the big ideas in the child's primary language so that he or she can better comprehend English instruction.

Exit sentence, remove a center on your table. Contamos en inglés. Escucha bien y repite con el grupo. In this lesson, we are going to count aloud. We will count in English. Listen carefully and repeat with the group.

Teacher Note

Songs with motions, finger plays, and chants are an excellent way to help English learners get a lot of repetition without the drudgery of drills. The accompanying motions make the words more comprehensible. There are many counting songs and rhymes in English that may be new to English learners. In this lesson, we sing the traditional song "This Old Man." Review the words and explain the meaning of the words and phrases. Point out that "knock paddy whack" is a nonsense phrase.

Access Vocabulary

English learners may benefit from clarification of some common phrases and words that proficient English speakers probably know. Occasionally words have more than one meaning or are used in potentially puzzling idiomatic expressions. Before or during the lesson, be sure to clarify the words and phrases below as well as others that might be unfamiliar.

mouse (Teacher's Edition, p. 3) a small object used while counting to reinforce the one to one correspondence

mouse (Teacher's Edition, p. 7) in this context, the mouse is part of the computer equipment that manipulates things on the screen.

Spanish Cognates

These words take advantage of what children and their families may know in their home language in order to accelerate the acquisition of math concepts in English. Other languages may also have cognates with English through shared Latin, Arabic, and Greek roots and affixes. See the appendix for a full listing of Spanish cognates.

to count contar
pattern patrón
numbers números
group grupo
movement movimiento
computer computadora

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Practice

Different types of blackline masters are included to support lesson instruction. These pages are used again and again throughout the prekindergarten program to build concepts and math skills. Some specific Practice resources include:

Places Scenes

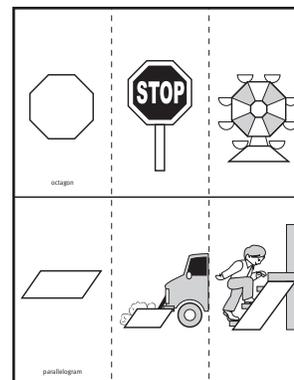
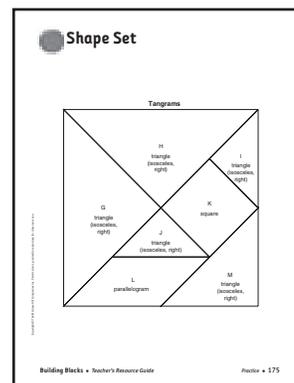
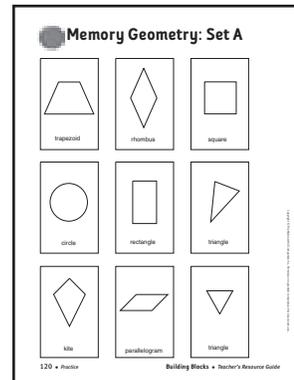
These blackline drawings are used mainly to explore and describe counting and number relationships.

Shape Sets

Shape Sets allow children to explore a variety of geometric shapes and how they are related.

Shape Flip Book

The Shape Flip Book provides opportunities to identify and match geometric shapes.



Family Letters

The Family Letter for each week of ***Building Blocks*** provides a way to keep families informed about what their children are doing and how they can help their children succeed in mathematics. Strong family support is a key factor in children's success at school.

What Research Says about Family Involvement

More than thirty years of research has proven how important family involvement is to student achievement. Effectively engaging families in the education of their children has the potential for more impact than any other type of education reform. When families are involved in their children's education, students have

- higher grades, test scores, and graduation rates.
- better school attendance.
- increased motivation.
- better self-esteem.

Key Findings

Family Expectations Having parents who set high academic expectations for students can increase the likelihood of students actually having high achievement.

Family Involvement at Home Parents who read to their children, have books available, take trips, guide television watching, and provide stimulating experiences contribute to student achievement.

Family Involvement at School The strongest and most consistent predictors of parent involvement at school and at home are the specific school programs and teacher practices that encourage parent involvement and guide parents in how to help their children.

Tips for Establishing a Math/Home Environment

Families whose children are doing well in school exhibit the following characteristics

1. Establish daily family routines.
 - a. Provide a time and place to study.
 - b. Assign responsibility for household chores.
 - c. Have a regular bedtime.
 - d. Have family meals.
2. Monitor out-of-school activities.
 - a. Set limits on television watching and computer use.
 - b. Know what children are watching on television.
 - c. Approve of what children are doing on the computer.
 - d. Check up on children when parents are not home.
 - e. Arrange after-school activities.
 - f. Arrange for supervised care.
3. Model the value of learning, self-discipline, and hard work.
 - a. Ask about school work.
 - b. Discuss what children are learning.
 - c. Communicate what everyone is learning.
 - d. Reward hard work.
 - e. Demonstrate achievement that comes from hard work.
 - f. Demonstrate interest in learning.
 - g. Express enjoyment of mathematics.
4. Express high but realistic expectations for achievement.
 - a. Set goals and standards appropriate for children's age and maturity.
 - b. Recognize and encourage talents.
 - c. Inform friends and family about successes.
 - d. Set high expectations for math achievement for both girls and boys.
5. Encourage children's progress in school.
 - a. Show interest in children's progress in school.
 - b. Help with homework, but don't do homework for children.
 - c. Discuss the value of a good education.
 - d. Communicate with teachers and school staff.
6. Encourage reading, writing, and discussion among family members.
 - a. Read books, magazines, and newspapers, and discuss what you have read.
 - b. Listen to children read and talk about what they are reading.
 - c. Identify and discuss the different roles that numbers and math concepts play in everyday life.



Math News

Building
Blocks

Dear Family,

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Help-at-Home Math Tips

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What's Ahead?

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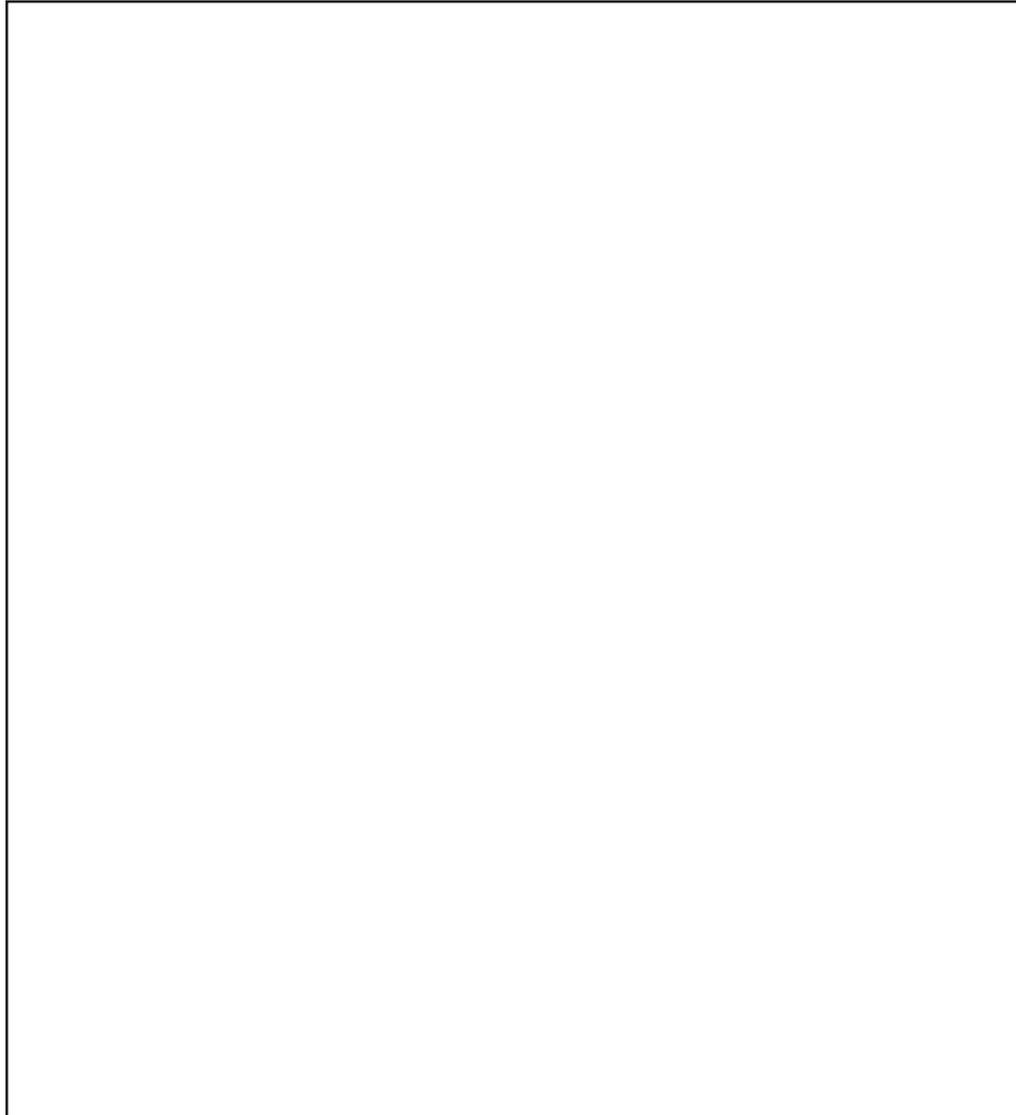


Math News



Here's What I Know

Ask your child to draw two of something. Then ask about his or her drawing.



What to Look For

- Are there two items? If not, how many items are there?
- Can your child accurately count aloud the items?

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Math News

Building
Blocks

Dear Family,

In Week 2, children continued to work on counting and recognizing and making small groups. The activities encouraged children to observe *amounts* rather than simply observe *objects*. This is something you can easily reinforce at home. For example, help your child see that there are *three steps* rather than just *some steps*. Read the tips below for more ideas.

Help-at-Home Math Tips

- Place your child's snack in several small groups, and ask: Which group has three (or another number)?
Benefit: This helps you assess your child's understanding of the link between number words and actual items.
- Count the number of a certain object your child can grab in one handful. Use objects about the size of a grape to keep the number of items small.
Benefit: This reinforces basic counting and encourages your child to attach number words to groups of items.
- Help your child count the number of strokes used when brushing his, her, or your hair.
Benefit: This provides counting practice.

What's Ahead?

In Week 3, children will continue to connect number words to the quantities they represent. They will count and make groups of up to five items and use rhythmic patterns to count to 10.

Don't forget...

Look at your child's work. As you discuss it with your child, ask what he or she learned about math this week.

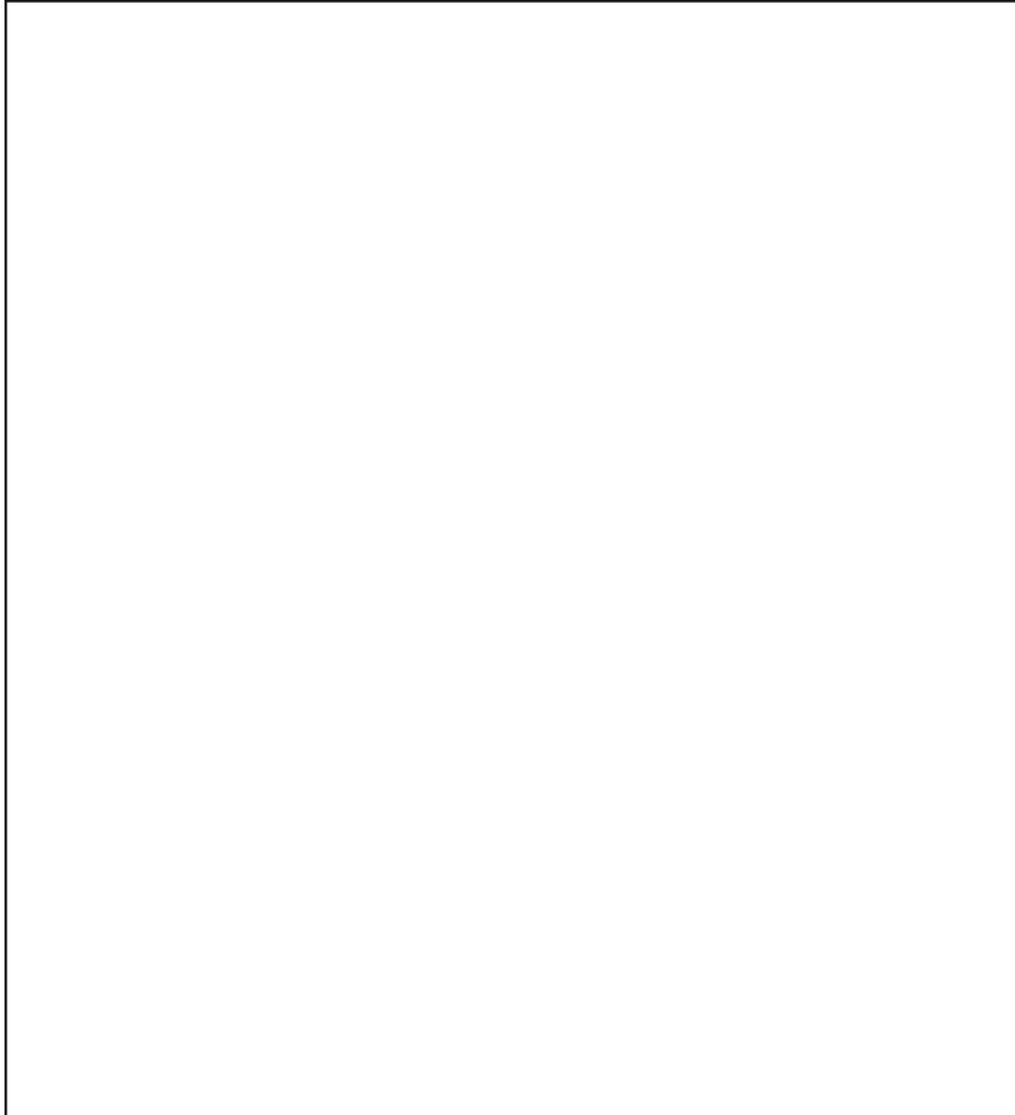


Math News



Here's What I Know

Ask your child to trace or draw a hand. Have your child tell how many fingers are on the hand.



What to Look For

- Are there five fingers on the hand? If not, how many fingers are there?
- Can your child accurately count to 5?

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Math News

Building
Blocks

Dear Family,

In Week 3, children continued to build counting skills while focusing on the four main components of counting: verbal counting, counting small collections, counting out (producing) small collections, and comparing small quantities. You can practice these skills at home by reading counting books with your child, such as *The Very Hungry Caterpillar* by Eric Carle.

Help-at-Home Math Tips

- Have each member of the family count the items on his or her plate and then say how many there are. You might even show your child how you can count backward as you eat them!
Benefit: This reinforces the connection between number words and actual items. The activity also provides practice with the sequence of number words, both forward and backward.
- Hide a small number of objects, such as parts to a toy or game. Reveal the objects one at a time as your child counts.
Benefit: This helps children link each number word they say to the quantity of objects they see.

What's Ahead?

In Week 4, children will explore basic geometric shapes. Three-dimensional objects and their connection to two-dimensional shapes will be discussed. Next week, please take time to help your child complete Week 4's Home Link which accompanies this letter. Your child may bring his or her work to share with the class at that time.



Math News



Here's What I Know

Ask your child to draw a bug with four spots. Have him or her tell how many spots the bug has.



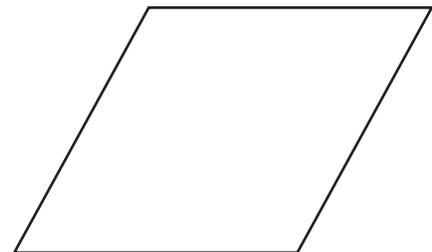
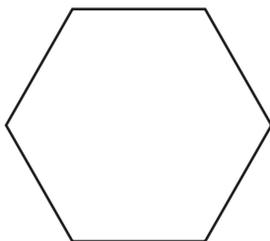
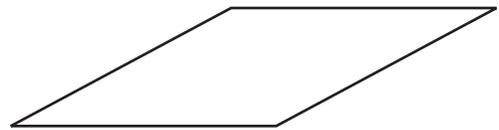
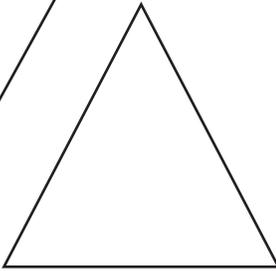
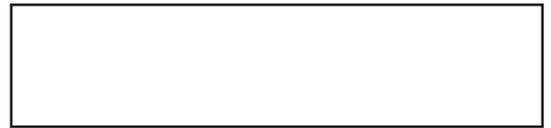
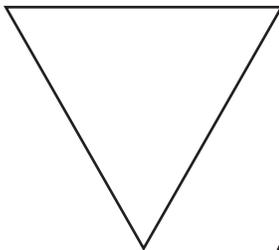
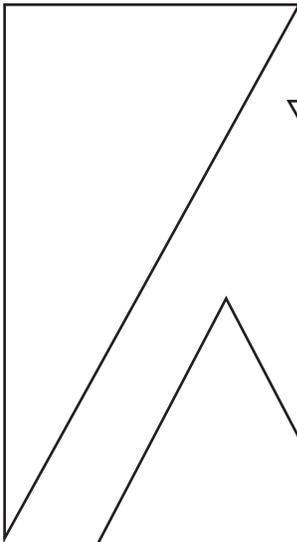
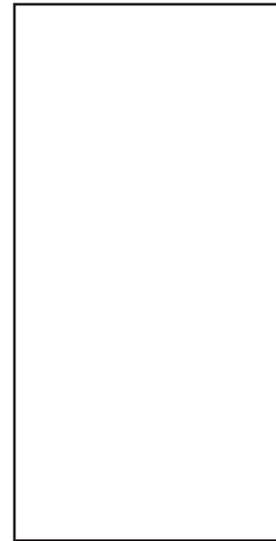
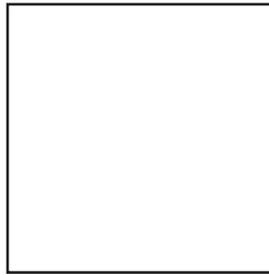
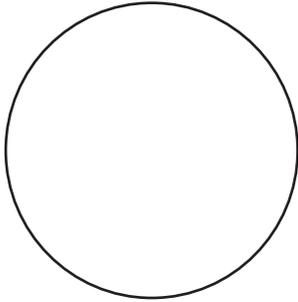
What to Look For

- Are there four spots on the bug? If not, how many spots are there?
- Can your child accurately count to 4?
- If your child drew legs on the bug, ask whether the bug has more spots, more legs, or the same number of spots and legs.

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Week 4 Home Link: Make a Toy

Directions: Cut out the shapes below, and help your child arrange them to make a picture of a toy by pasting the shapes on another sheet of paper. Make more copies of the shapes if you would like.



**Building
Blocks**

Math News

Dear Family,

This week in *Building Blocks*, children began to explore geometry and spatial concepts. The activities focused on naming familiar two-dimensional shapes (circles and squares), matching congruent shapes (those that are exactly the same size and shape), and identifying circles and the attributes of a circle. The connection between two-dimensional shapes and three-dimensional objects was discussed. For example, children observed that the top and bottom of a can are circular. Invite your child to trace the base of a can at home to show you how she or he can draw a circle. Read the tips below for more math activities you and your child can do together.

Help-at-Home Math Tips

- Display pennies, nickels, dimes, and quarters for your child to examine. Ask your child to make stacks of coins that are the same shape and same size. Also, using one of each type of coin, have your child arrange them in order from smallest to largest.
Benefit: This provides practice with identifying congruent shapes, making comparisons, and introducing coins.
- With your child, draw basic shapes on the sidewalk or driveway with chalk. Ask your child to name each shape and tell you about it.
Benefit: This provides practice with identifying shapes and helps reinforce the attributes of different shapes. For example, a square has four sides that are the same length; a circle is round and curves the same without breaks; a triangle has three sides.
- Have family members count slowly to 15 every time they wash their hands, which is actually recommended by health professionals.
Benefit: This provides counting practice.

What's Ahead?

In Week 5, children will continue to build shape knowledge as new shapes and their attributes are introduced. We will begin to connect their shape knowledge to their number knowledge.

Don't forget . . .

Review your child's work to find out what we learned about circles.

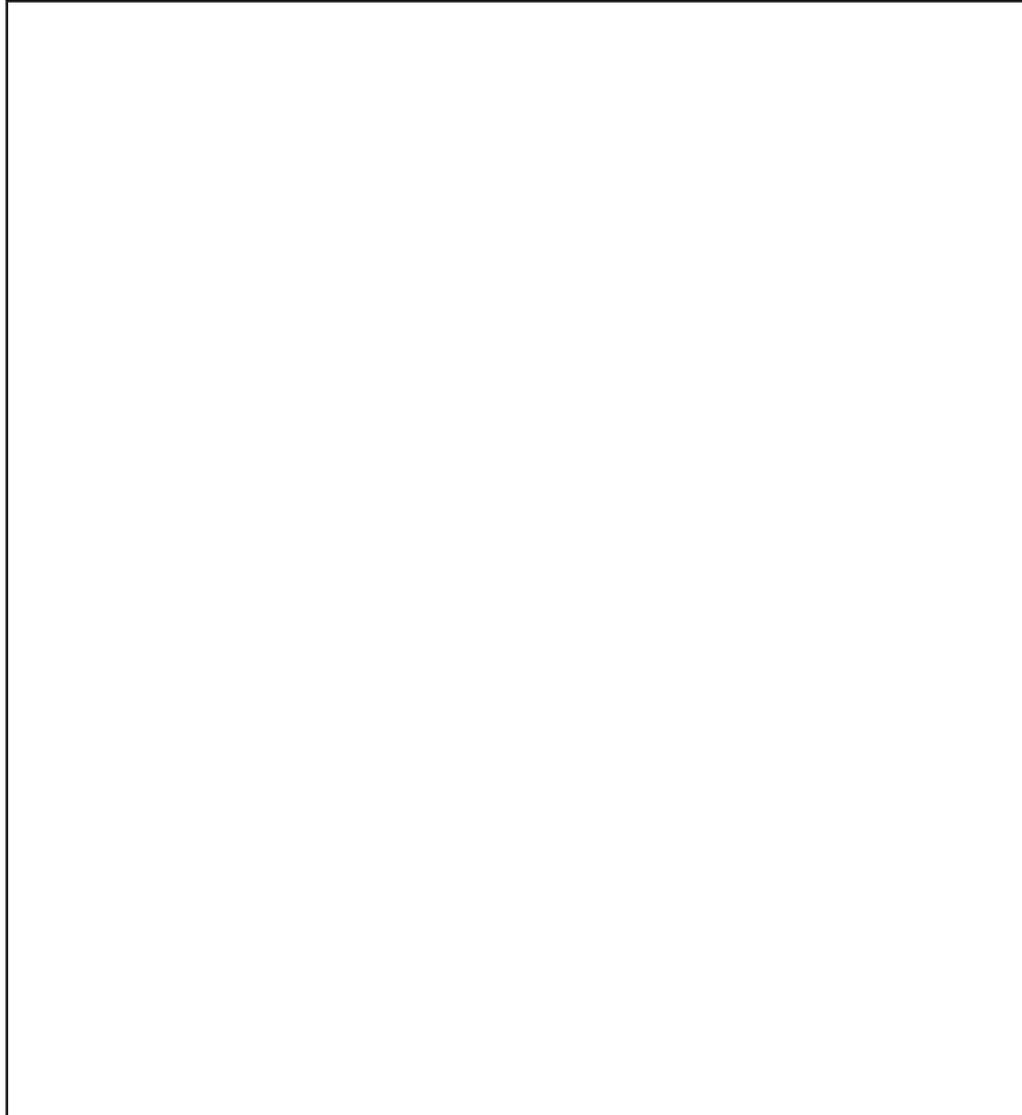


Math News



Here's What I Know

Ask your child to draw a picture of a circular object in the classroom. Then ask your child what he or she drew.



What to Look For

- Can your child tell you why the object is a circle?
- Are other shapes included in the drawing? If so, name them with your child.



Math News



Dear Family,

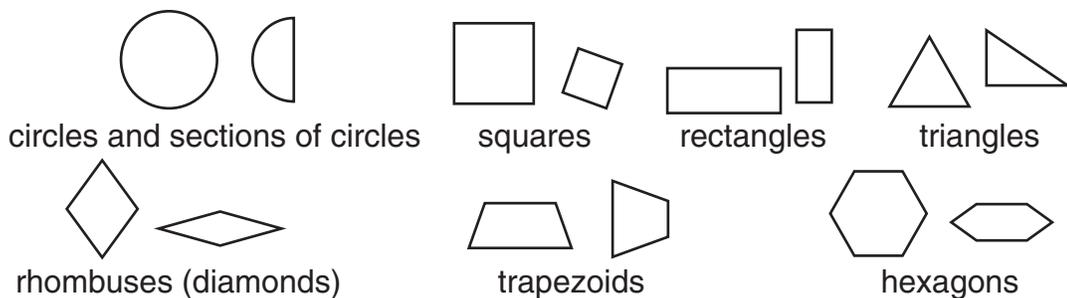
This week children continued to explore geometric shapes. We practiced naming triangles, rectangles, and squares and talked about the attributes of these shapes. We also went on shape hunts to find examples of triangles, rectangles, and squares. Read the tips, and see the Home Link below for additional shapes you can include in a shape hunt at home.

Help-at-Home Math Tips

- Go to the library and check out shape books with your child, such as *The Shape of Things* by Dayle Ann Dodds and *There's a Square: A Book about Shapes* by Mary Serfozo.
Benefit: This helps develop shape recognition, and it is a great chance to read together.
- Let your child build shapes from straws, toothpicks, and the like. Have your child name each shape and count its sides.
Benefit: This provides practice with shape building and identification, as well as counting.

Home Link

With your child, go on a shape hunt indoors or outdoors. Look for these two-dimensional (flat) shapes. Help your child list or draw the shapes he or she finds.



What's Ahead?

In Week 6, children will focus once again on counting skills. They will practice creating and identifying groups containing up to five items, emphasizing the connection between number words and the quantities they represent.

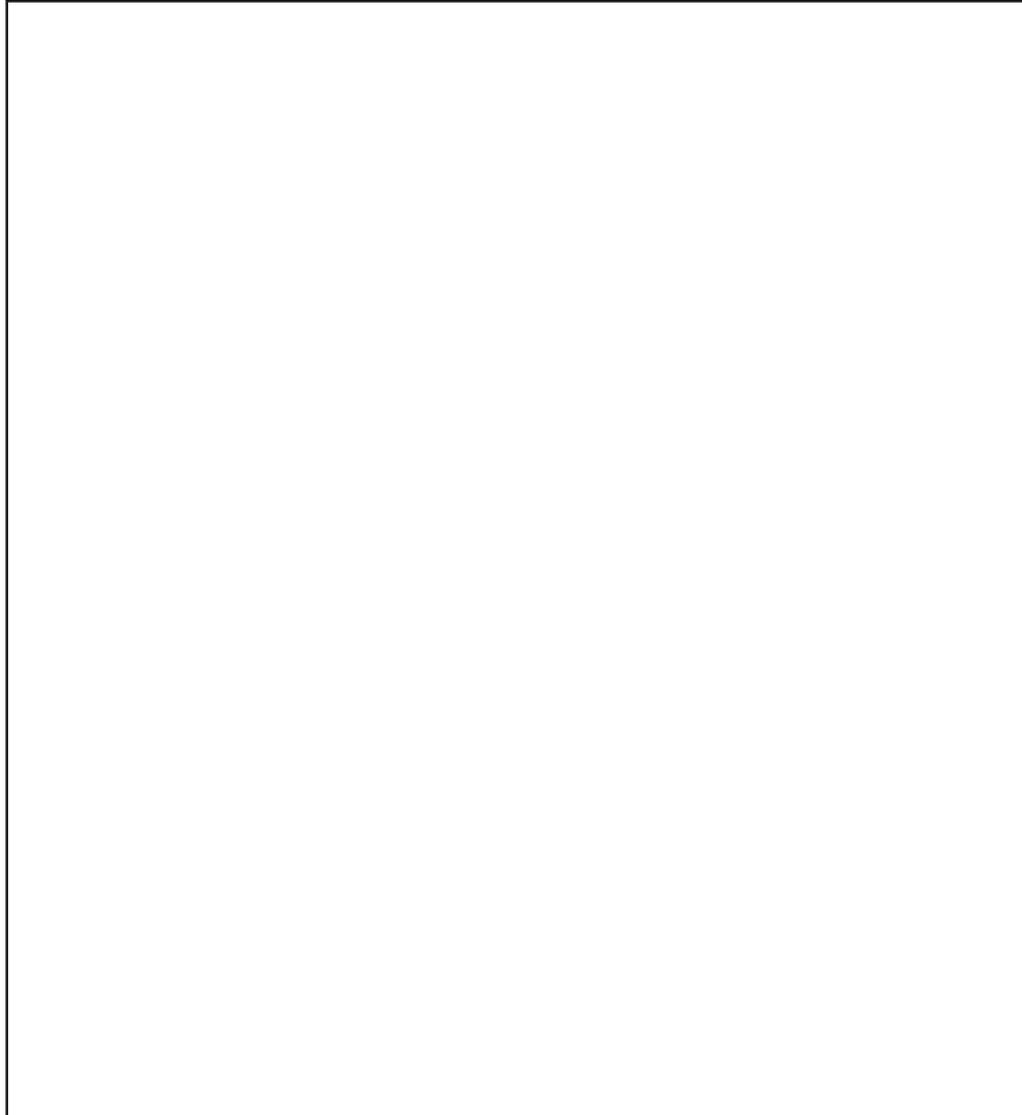


Math News



Here's What I Know

Ask your child to draw a triangle. Have him or her tell you about the shape he or she drew.



What to Look For

- Did your child draw a triangle?
- Can your child tell you why a shape is a triangle? (It has three straight sides that connect and there are no gaps.)



Math News



Dear Family,

This week in *Building Blocks*, children continued to build their counting skills. We practiced counting to 5 *with understanding*, as well as creating and identifying groups containing up to five items. This week's activities were designed with the following goals in mind:

- Children learn the importance of keeping one-to-one correspondence between the number words they say and the objects they count.
- Children learn that the last number they counted tells how many.
- Children learn how to figure out if two groups are equal.

All of these skills are practiced in Pizza Game 1, for which you will find an activity sheet with this letter. We hope you will enjoy this game, and play it with your child often. More tips for at-home math activities follow.

Help-at-Home Math Tips

- Play a board game that requires players to count spaces as they move. Simple adaptations can help challenge your child at his or her own level of thinking, such as using a single die instead of two dice.
Benefit: This reinforces counting skills.
- Compare amounts of various items. For example, ask your child whether there are more forks or knives on the table or figure out whose name has more letters. Write numerals for each amount.
Benefit: This provides practice with comparing quantities, an important component of counting.

What's Ahead?

In Week 7, children will continue to reinforce counting skills. They will once again be working with groups up to five items to build their understanding of one-to-one correspondence and comparing small groups.

Don't forget . . .

Discuss the work your child completed in this letter, asking what he or she learned about math this week.

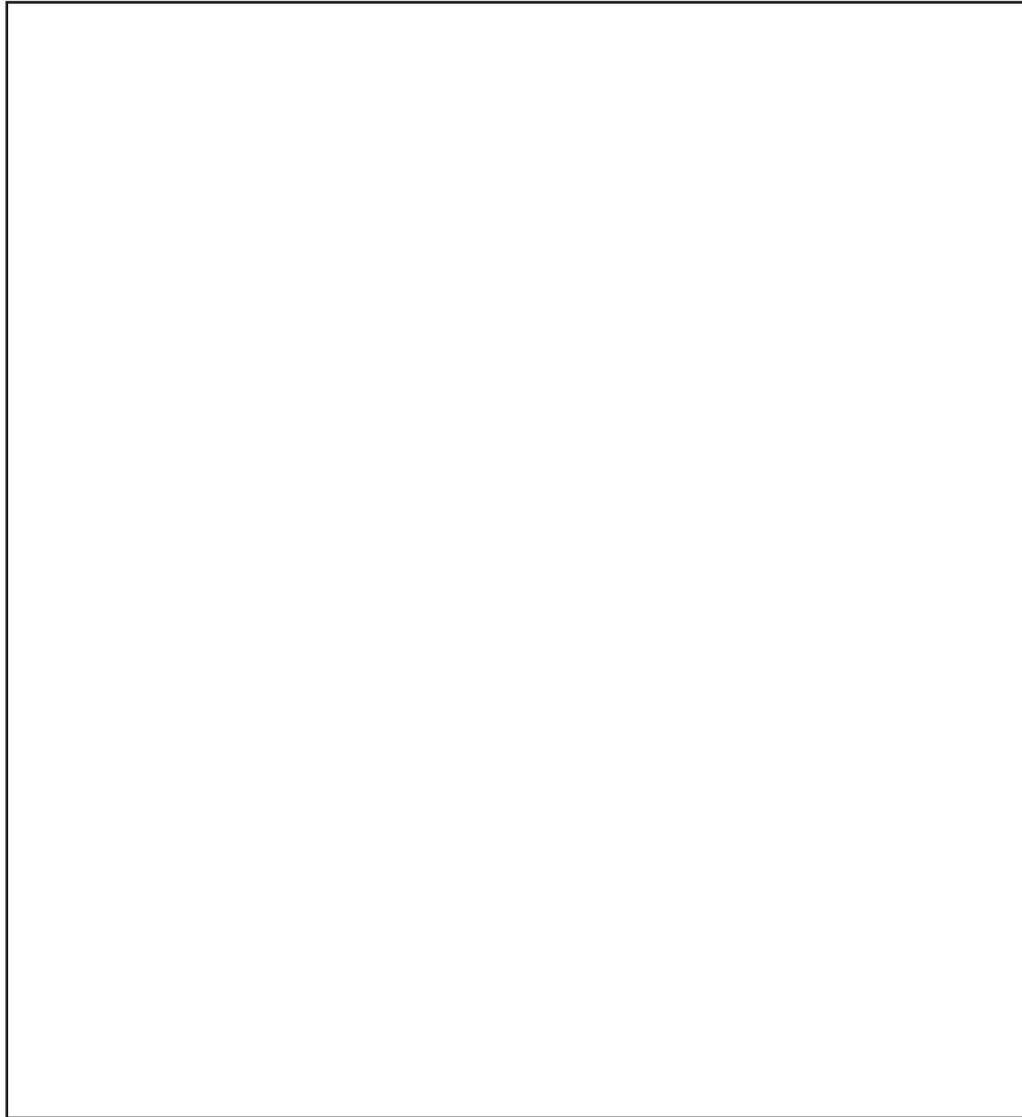


Math News



Here's What I Know

Ask your child to draw a group of 5. Have your child tell about his or her drawing.



What to Look For

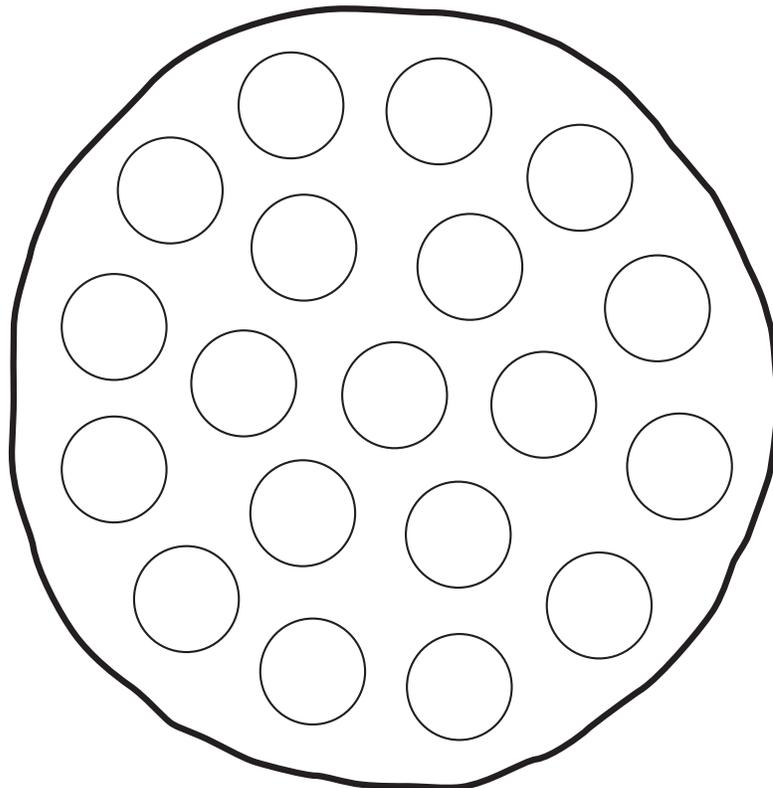
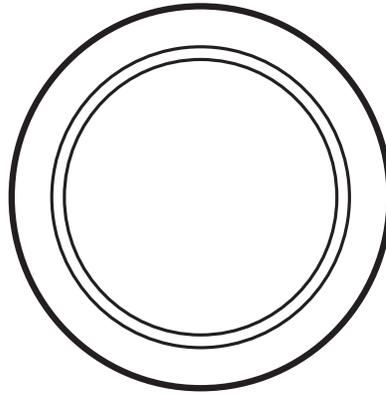
- Are there five items? If not, how many items are there?
- Can your child accurately count to 5?

Pizza Game 1

Try this game with your child.

What's needed: Pizza Game 1 sheet, one die, and small red buttons or the like

Directions: Each player has a sheet. Player 1 rolls the die and puts that many counters on the sheet's plate. Once Player 2 agrees that Player 1 counted correctly, Player 1 moves the counters to the sheet's pizza. Players take turns until all pizza spaces have "toppings."





Math News

Building
Blocks

Dear Family,

This week we are focusing on counting and on the numerals, or written numbers, to 5. As symbols, numerals can help children think more abstractly about numbers. It is important, however, to connect numerals to mathematical ideas and quantities, for example, by comparing small groups and making groups equal in number.

Help-at-Home Math Tips

- Ask your child to guess the number of any of the following where you live: beds, rooms, windows, doors, clocks, stairs, and chairs. Make a record sheet with pictures or sketches of the items to be counted. Walk with your child to count things together. Write the total number of each thing next to its picture.
Benefit: Guessing an amount helps build number sense and motivates children to seek the answer.
- Go on a numeral hunt. Find and read numerals in clocks, remote controls, keyboards, shoes, clothing, newspapers, and so on.
Benefit: This activity provides practice with identifying numerals and building number knowledge.
- Help your child write numerals. Your child should name each numeral he or she writes.
Benefit: Writing and naming numerals help your child understand the meaning of numbers.

What's Ahead?

In Week 8, children will continue to develop their ability to compare numbers. Activities will once again focus on using one-to-one correspondence to make a group that is equal in number to another group and determining whether two groups are equal.



Math News



Here's What I Know

Have your child write the numeral that tells his or her age.

A large, empty rectangular box with a black border, intended for a child to write their age numeral.

What to Look For

- Did your child choose the numeral that represents his or her age?
- Did your child correctly form the numeral, such as 4 or 5?

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Math News

Building
Blocks

Dear Family,

This week in *Building Blocks*, children continued to work on developing the number skill known as *subitizing*, which is the ability to instantly recognize the number of items in small groups. Some ways children use subitizing are to determine the number of items in a group, to compare groups, and to identify the number of actions in a sequence.

Help-at-Home Math Tips

- Hide a small number of coins in your hand. Then hold out your hand, and allow your child to see all of the coins for only two seconds before closing your hand again. Ask your child to tell how many coins you have.
Benefit: This reinforces instant recognition of small quantities (subitizing).
- Play the Compare Game with your child. Instructions are provided below.
Benefit: This game helps develop number comparison and counting.

Compare Game

Number of Players: 2

What's needed: Two sets of ten cards with numerals and dots to 10. Each card has a numeral written on it with the corresponding number of dots organized in up to two columns, for example, 5 would have five dots that make one column while 10 would be two columns of five dots. You can make these using plain (as opposed to lined) 3 × 5-inch index cards (or blank paper cut to a similar size), or use regular playing cards where the ace is 1.

Directions:

1. Mix the cards.
2. Deal cards evenly, facedown to each player. Players place their cards in front of them.
3. Players flip their top cards at the same time and compare them to see which is greater (for example, 8 is more than 5).
4. The player with the greater card says "I have more!" and takes the cards. If cards are equal, players flip another card to break the tie.
5. When all cards have been played, the game is over, and the player with more cards wins.

What's Ahead?

In Week 9, children will learn more about two-dimensional and three-dimensional shapes.

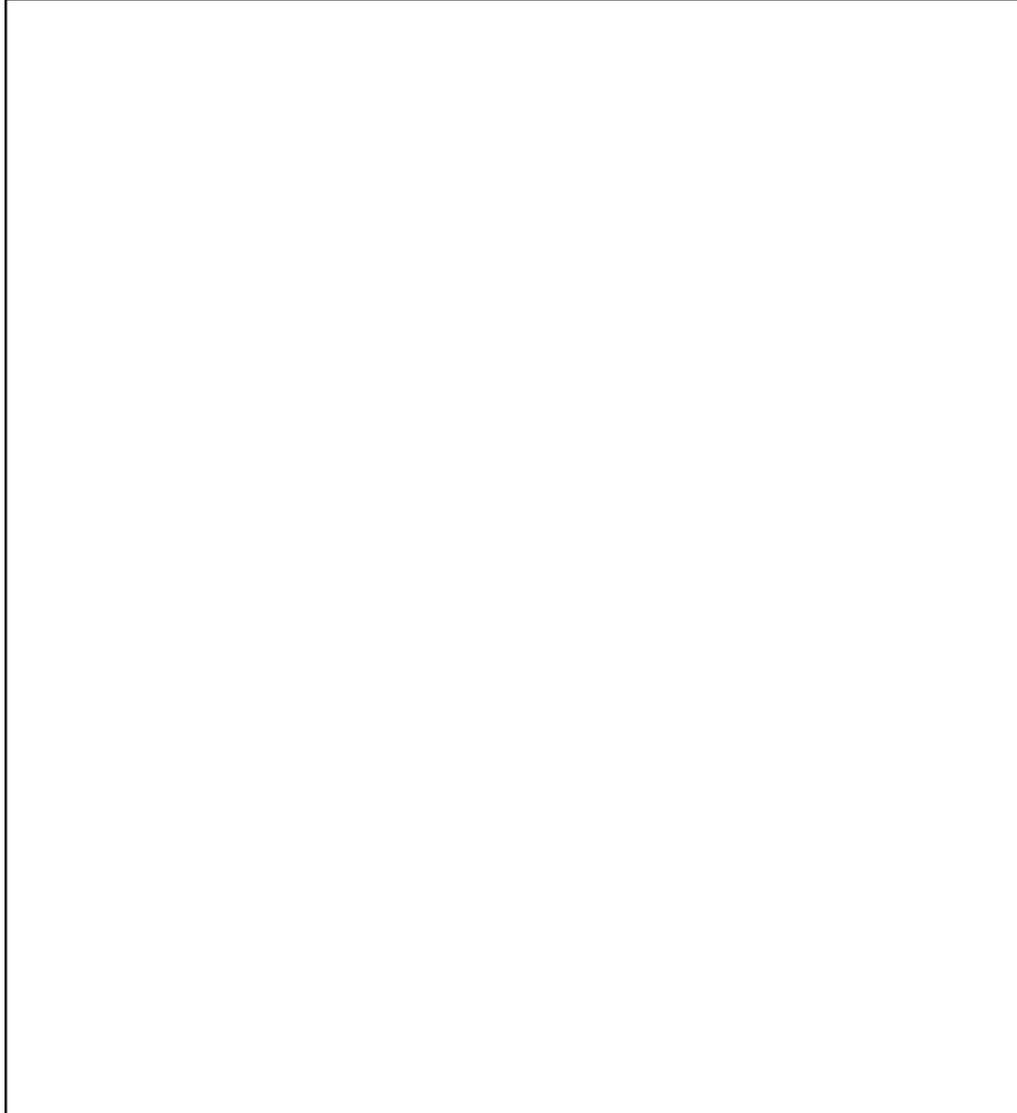


Math News



Here's What I Know

Have your child make a group of 4 and a group of less than 4. Ask your child about his or her drawing.



What to Look For

- Did your child make two groups?
- Does one group have four items and the other group have less than four items?
- Can your child tell you which group has more items?

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Math News

Building
Blocks

Dear Family,

This week's focus was geometry. Children named, described, and matched shapes in a variety of activities. With this letter you will find such an activity, **Memory Geometry: 2D Shapes**, which provides geometric and memory practice. We hope you and your child will enjoy this game together.

Help-at-Home Math Tips

- Look around for right angles with your child. You can explain a right angle by showing the capital letter *L* a door makes at one of its corners. Look at windows, picture frames, and so on.
Benefit: This helps children become familiar with right angles, recognizing them as an element of squares and rectangles.
- Allow your child to trace food boxes, such as pasta and cereal, on a large sheet of paper. After he or she traces several boxes of different sizes, help him or her match each box to its outline.
Benefit: This activity provides practice with matching congruent (exact same size and shape) items.

What's Ahead?

In Week 10, children will continue to build their shape knowledge, including shape attributes and relationships to one another. We will also reinforce counting, grouping, and other number skills.

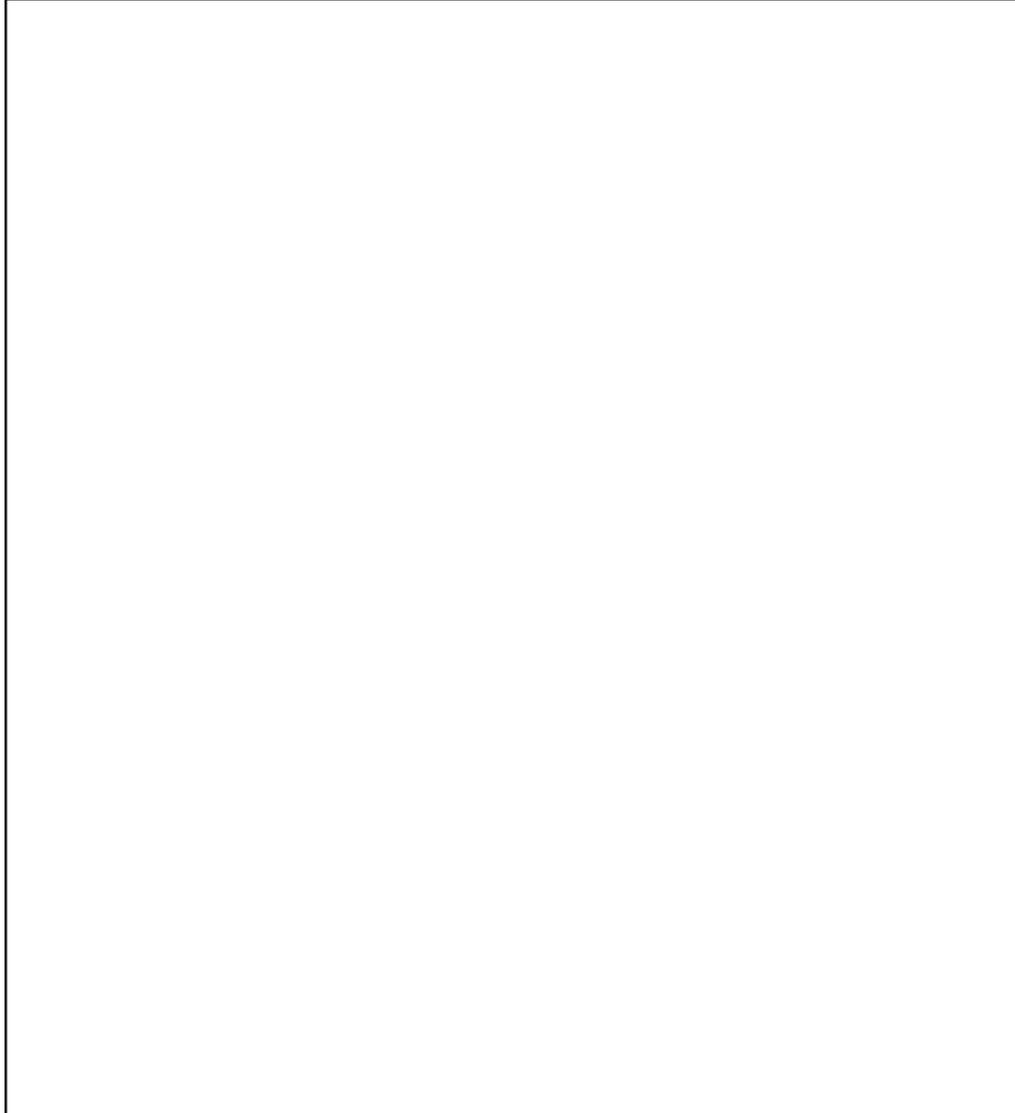


Math News



Here's What I Know

Ask your child to draw a rectangle. Have your child tell about his or her drawing.

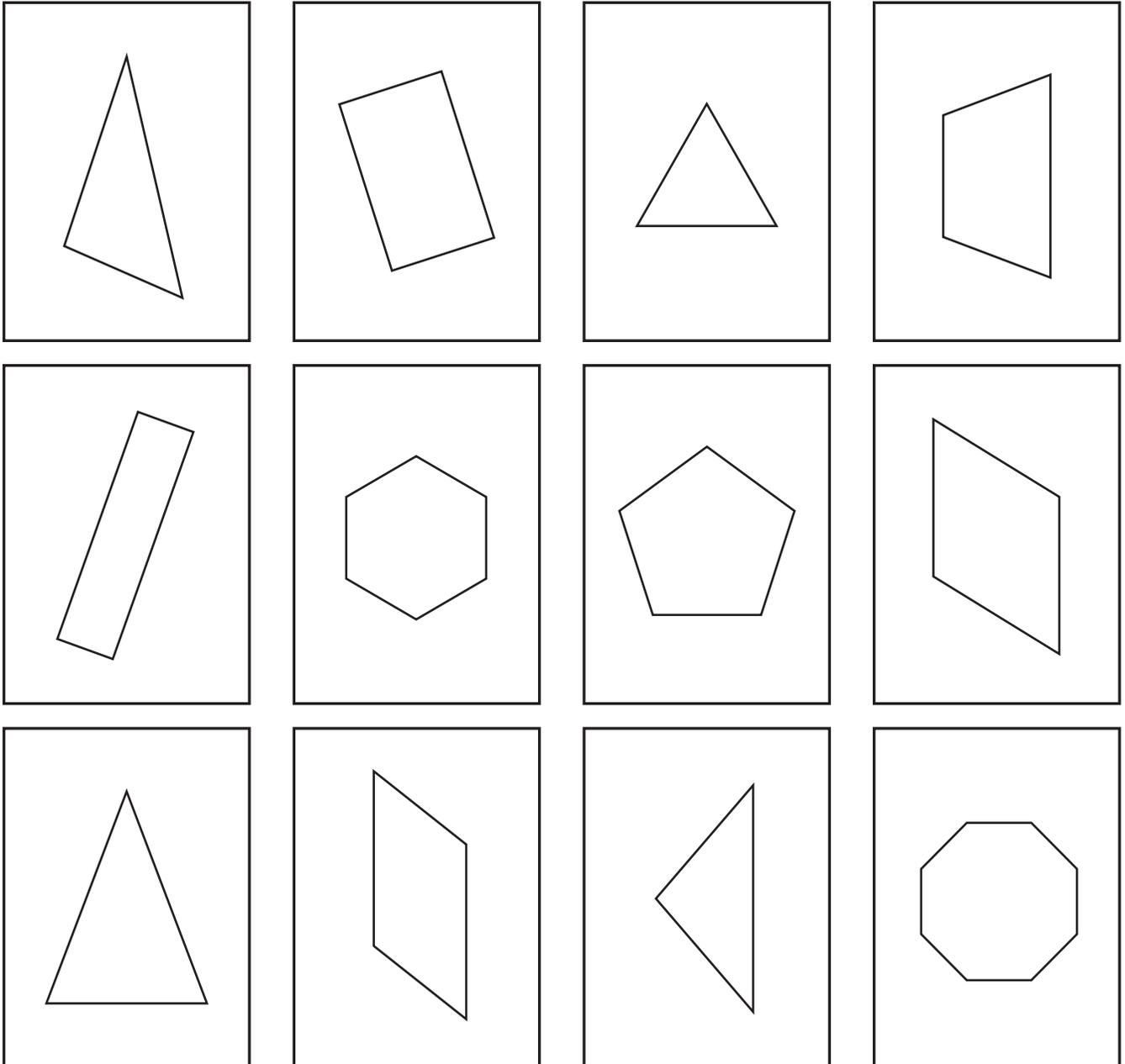


What to Look For

- Did your child correctly form a rectangle?
- Can your child tell you why a shape is a rectangle? (A rectangle has four straight sides, each connecting at a corner that makes a right angle. Rectangles are different than squares because all sides of a square are the same length.)

Memory Geometry: 2D Shapes

Directions: Use two sets of the cards below (or make your own by drawing these shapes on plain 3 × 5-inch index cards). Arrange each set in two rows of six, placing the cards facedown. One player at a time flips one card from each set. If the cards match, that player keeps them and takes another turn. If the cards do not match, they are replaced where they came from facedown, and the second player takes his or her turn. Once all pairs have been found, the player with the most pairs wins.



**Building
Blocks**

Math News

Dear Family,

This week in *Building Blocks*, we focused on shapes and spatial relationships. Children named, described, and sorted shapes in activities that emphasized the attributes of familiar shapes. As they continued to build their knowledge of circles, squares, rectangles, and triangles, children also experimented with combining these shapes to make pictures.

With this letter you will find a reference sheet of shapes the children will learn about throughout the year. Please keep the sheet in a convenient place, such as on the door of your refrigerator.

Help-at-Home Math Tips

- Play I Spy with shapes. For example, say, “I spy something that is a rectangle.” Have your child guess the item, and then take turns being the guesser and the spy. As an alternative to naming the shape, give clues instead. For example, for a square item, say, “I spy something that has four sides the same length.”

Benefit: This activity provides practice with identifying shapes and their attributes.

- Ask your child which shape he or she would like a sandwich, pancake, or the like cut into. Take time to look for shapes in all sorts of food.

Benefit: This helps children name and describe shapes.

What's Ahead?

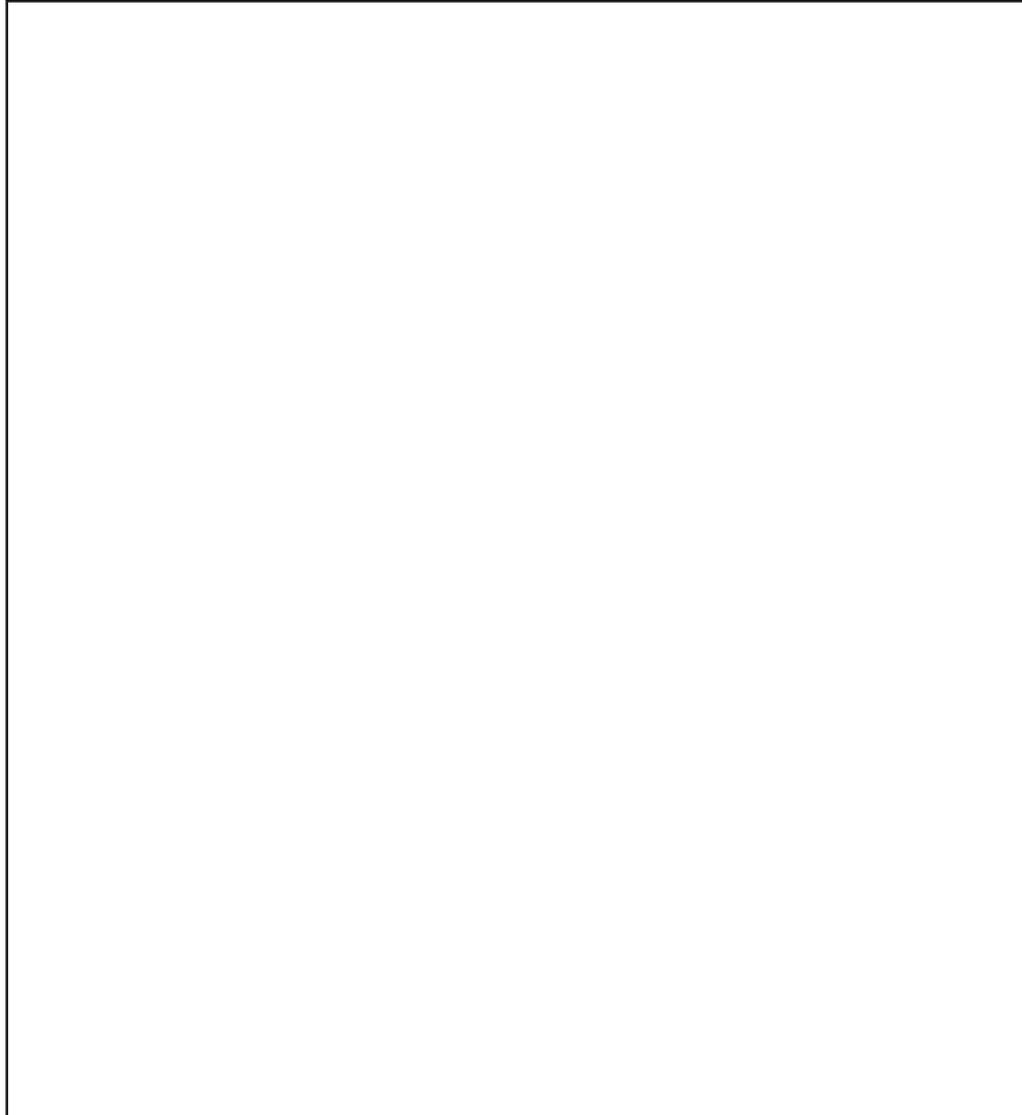
In Week 11, the main focus returns to building children’s number knowledge. Computer games and other classroom activities help reinforce skills that have already been taught, as well as introduce simple addition.

Don't forget . . .

Review your child’s work to discover what he or she has been doing in class!

Here's What I Know

Have your child draw a shape with four straight sides of equal length. Ask your child about his or her drawing.



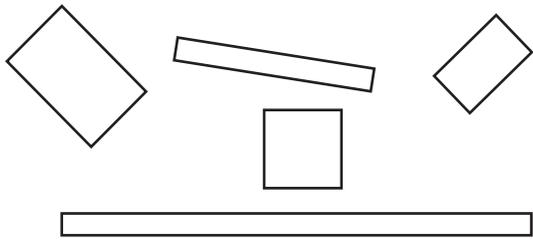
What to Look For

- Does the shape have four straight sides equal in length?
- Can your child tell you the name of the shape? (square)

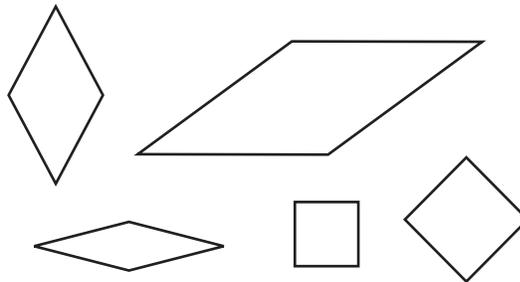
Shapes, Shapes, Shapes

We are learning many shapes—please keep this sheet handy.

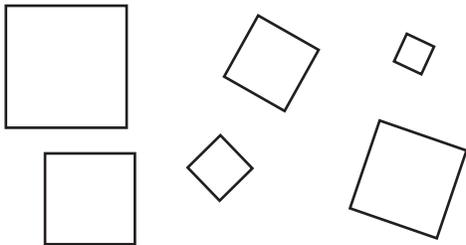
Rectangles have two pairs of sides that are parallel (going the same direction) and equal in length. Rectangles have four right angles. If all sides of a rectangle are equal, then it is also a square.



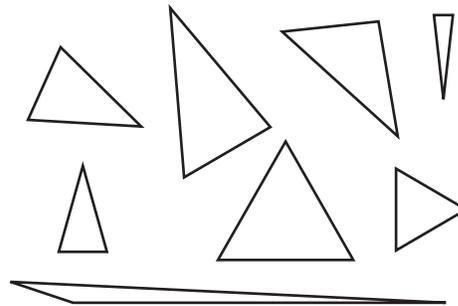
Rhombuses, informally called *diamonds*, have four equal sides. If the angles of a rhombus are right angles, then it is also a square.



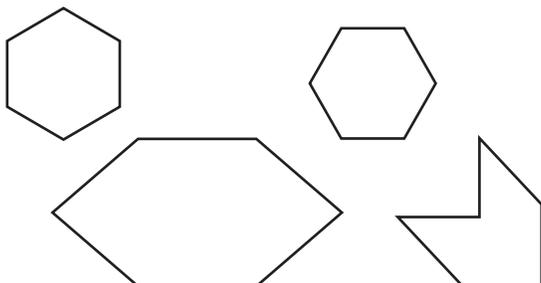
Squares have four sides of equal length and four right angles. This makes a square a special rectangle (with all sides equal), as well as a special rhombus (with all angles equal).



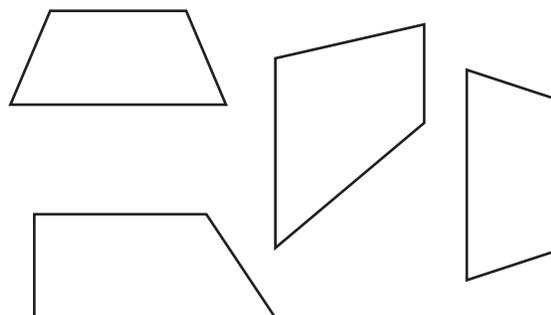
Triangles are closed shapes with three straight sides which create three angles.



Hexagons have six sides and six angles. We often think of hexagons as having all equal sides and angles, but any shape with six sides is a hexagon.



Trapezoids have four sides, and one pair of sides is parallel (going the same direction).





Math News



Dear Family,

This week children worked on counting sets of up to ten objects and labeling each collection with a numeral. Such an exercise reinforces the link between numerals and the quantities. Simple addition was also introduced through counting.

With this letter you will find an activity sheet for Memory Number. Playing this game with your child will help develop his or her skills in number recognition, reading numerals, and counting. Have fun!

Help-at-Home Math Tips

- Challenge your child to keep track of the total number of a specific item he or she counts, such as buttons on a shirt. Ask your child, “What could we draw or write to record the number?” Help him or her draw a picture *and* write the numeral to represent the total.
Benefit: This connects numerals to the quantities they represent.
- Work with your child to make a collage of numerals found in magazines and newspapers. Read the numerals with your child. Young children enjoy hearing and saying large numerals even if they cannot read them.
Benefit: This activity helps children recognize numerals and their importance and frequency in life.

What’s Ahead?

In Week 12, children will count to 10 and start the process to count beyond 10. They will also compare, sort, and classify small groups.

Research in Action

What number words mean, or how they break down, in Asian languages makes more mathematical sense than their English counterparts. Asian number words translate to “...nine, ten, ten-one, ten-two, ten-three...,” and so on. The teen numerals in English conceal the idea of 10, particularly in 13 and 15, where the 10 misleadingly comes after the three or five ones (what the 3 and 5 represent). Children often confuse or skip 13 and 15 when counting aloud. Pay close attention to your child’s understanding of such numerals, and provide any extra help counting all teen numerals. For example, explain that 13 means 10 and 3 and 15 means 10 and 5.



Math News



Here's What I Know

Have your child write the numeral 7.

A large, empty rectangular box with a thin black border, intended for a child to write the numeral 7.

What to Look For

- Does the numeral look like a 7?
- Can your child make a group of 7? Have him or her show you on his or her hands.

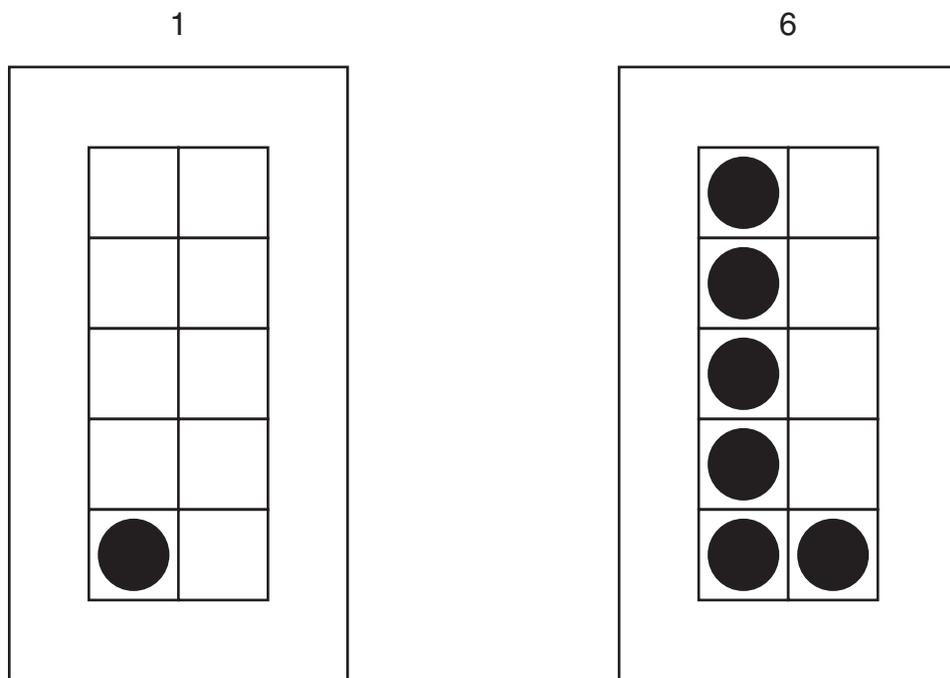
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Memory Number

This game develops skills in number recognition, reading numerals, and counting.

For this game, make ten Numeral Cards (using, for example, ten plain 3" × 5" cards, each with a numeral 1 to 10) and ten Dot Cards (also ten cards, each with the corresponding number of dots 1 to 10).

Here are examples of how Dot Cards should look:



Directions: Arrange the Numeral Cards and the Dot Cards facedown, each in two rows of five. One at a time, players flip over one card from each array. If cards match, that player keeps them and takes another turn. If they do not match, cards are replaced where they came from facedown and the other player takes his or her turn. Once all pairs have been found, the player with the most pairs wins.



Math News



Dear Family,

One of our main activities this week in *Building Blocks* involved sorting, classifying, and counting small groups. As children learn to sort a larger collection into smaller groups, they begin to understand the part-whole relationship. These are challenging skills, but ones that even young children can master.

Help-at-Home Math Tips

- Play I Spy with numerals. For example, say, “I spy a 3,” and have your child identify where. Take turns being the guesser and the spy.
Benefit: This activity provides practice with number recognition.
- Play Compare Game: Numerals with your child. Instructions are provided below. This is slightly different from Week 8’s Compare Game, in which both numerals and dots appeared on the cards. In this version, use cards with numerals only.
Benefit: This game develops number skills in recognition and comparison.

Compare Game: Numerals

Number of Players: 2

What’s needed: two sets of ten cards, each with a numeral 1–10 only

Directions:

1. Mix the cards.
2. Deal cards evenly, facedown to each player. Players place their cards in front of them.
3. Players flip their top cards at the same time and compare them to see which is greater (the larger numeral).
4. The player with the greater card says, “I have the bigger number!” and takes the cards. If cards are equal, players flip another card to break the tie.
5. When all cards have been played, the game is over, and the player with more cards wins.

What’s Ahead?

In Week 13, children will order numbers and lengths, placing numerals in proper sequence. They will also explore the plus 1 pattern, a growing pattern in number.

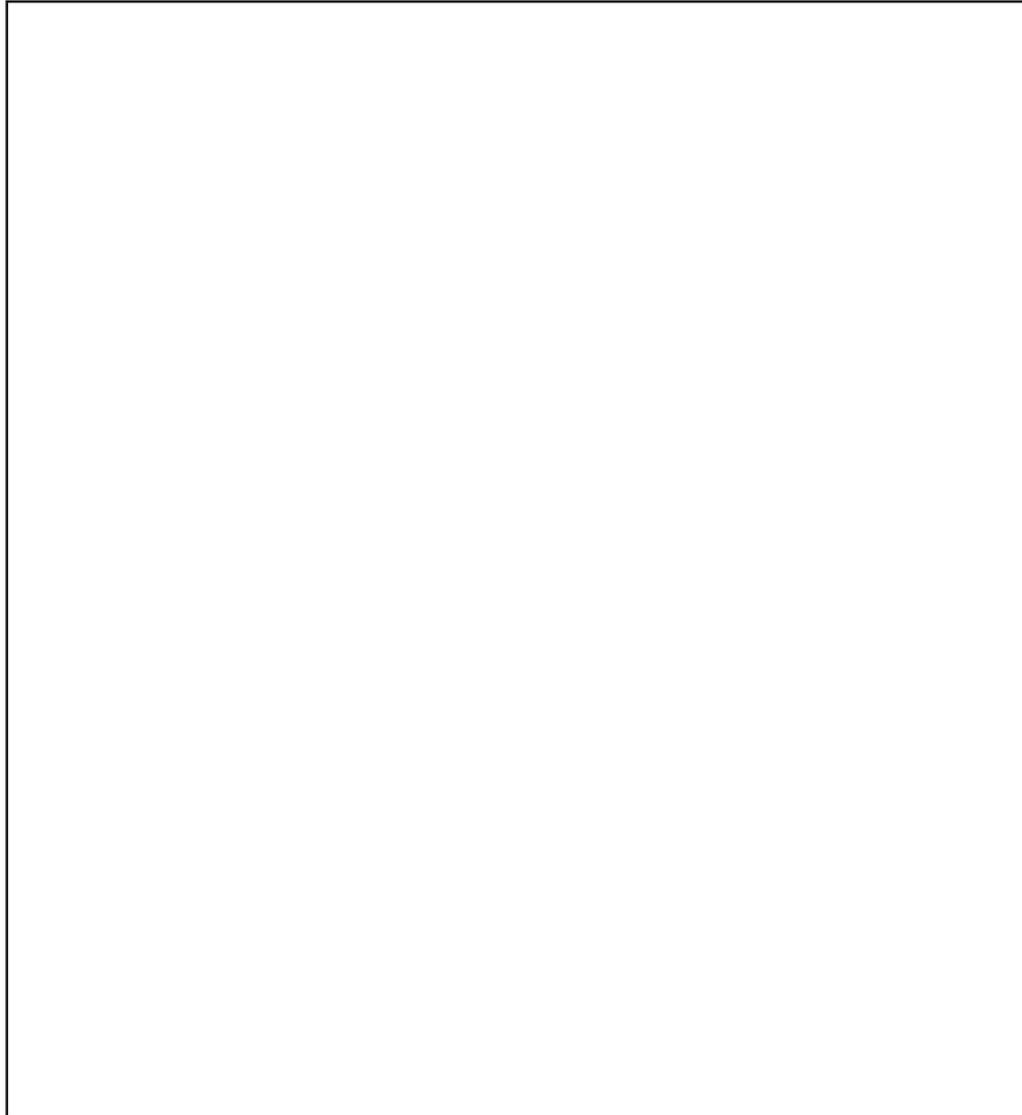


Math News



Here's What I Know

Have your child make a group of 3, and then label the group with its numeral.



What to Look For

- Are there three items? If not, how many items are there?
- Did your child label the group correctly?
- Can your child accurately count aloud the items?

**Building
Blocks**

Math News

Dear Family,

This week focused on the plus 1 growing pattern in counting, as well as putting numbers in correct sequence. In one of many activities, children worked with connecting cubes to build stairs.

Help-at-Home Math Tips

- Count aloud each step when you and your child walk up stairs (you could even count backward as you walk back down them). If there are steps where you live, help your child label them with numerals written on self-sticking notes or the like—begin with 1 for the bottom step, counting one higher as the steps go up.

Benefit: This activity reinforces the plus 1 pattern.

- Create two sets of cards with numerals 1–10 written on them. Use the cards to play Order Cards and Order Cards Race. Instructions are provided below.

Benefit: These games develop correct sequencing.

Order Cards

Number of Players: 1

What's needed: one set of ten cards with numerals 1–10 only

Directions:

1. You or your child mixes (shuffles) the cards, and then places them face up in random order.
2. Your child puts the cards in the correct order (from 1 to 10).
3. Point to two cards, and ask your child which numeral is larger and how she or he knows.

Order Cards Race

Number of Players: 2

What's needed: two sets of ten cards with numerals 1–10 only

Directions:

1. Each player gets one set of cards, mixes them, and then places them face up in random order.
2. On the word *Go*, both players work as quickly as possible to put their cards in the correct order. The player who does this first wins.

What's Ahead?

In Week 14, children will continue to learn about various shapes.



Math News



Here's What I Know

Have your child make a group of 2 and then make a group that has one more than 2.

A large, empty rectangular box with a thin black border, intended for a student to draw or write their response to the math problem.

What to Look For

- Are there two items in the first group? If not, how many items are there?
- Are there three items in the second group? If not, is there one more item than in the first group?
- Can your child explain which group has more and how he or she knows it has more?



Math News

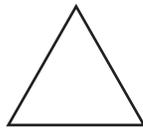


Dear Family,

This week in *Building Blocks* children focused on shapes and other related geometric ideas. We are currently working with the following two-dimensional (flat) shapes:



hexagon



triangle



rectangle



trapezoid



square

rhombus
(diamond)

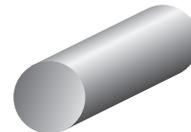
Later, we will work with the following three-dimensional (solid) shapes:



sphere



cone

rectangular
prismtriangular
prism

cylinder

Help-at-Home Math Tips

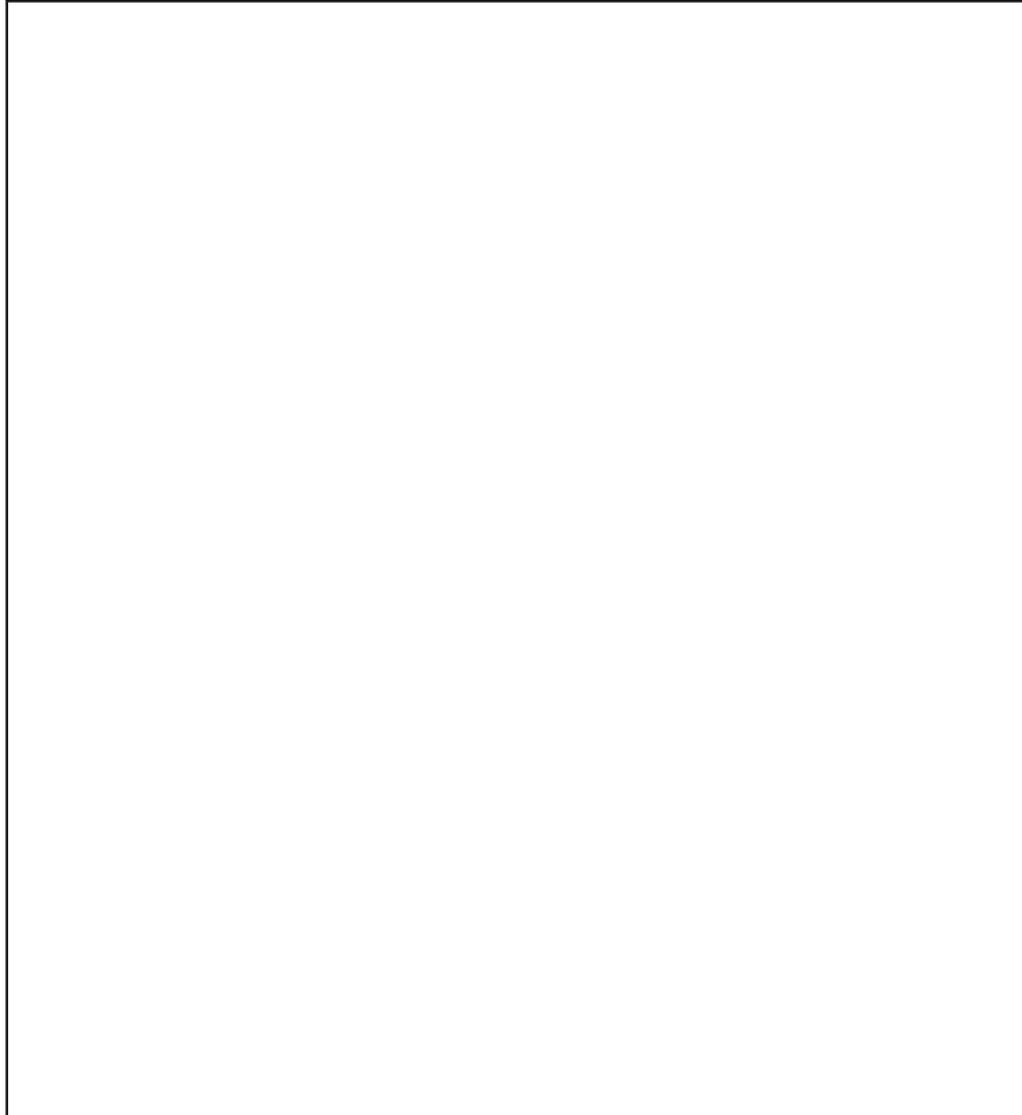
- Look everywhere—stores, buildings, parks—for the chance to discuss shapes. Help your child identify and name shapes that are two-dimensional (for example, a speed limit sign is a rectangle) and those that are three-dimensional (for example, a ball is a sphere, and a can is a cylinder).
Benefit: This activity provides practice with shape recognition.
- Let your child compare clean, empty plastic food containers and pots and pans. Discuss their shapes and sizes, noting which fit inside of others and which can be safely stacked on each other.
Benefit: This activity helps develop awareness of spatial relationships.

What's Ahead?

In Week 15, children will continue to identify, match, and sort shapes.

Here's What I Know

Have your child draw something in the room that is a rectangle. Ask your child what he or she drew.



What to Look For

- Can your child tell you why what he or she drew is a rectangle?
- Are there other shapes in the drawing? Can your child identify those shapes?



Math News

Building
Blocks

Dear Family,

Children continued to focus on naming, describing, matching, and sorting shapes this week. Children's geometry skills are growing as they become more familiar with a wide variety of shapes. This would be a good time to refer to the Shapes, Shapes, Shapes reference sheet that was already sent home to you, and ask your child about each or several of the shapes. For example, you might ask: What makes a square a square? (four straight sides of equal length and four right angles)

Help-at-Home Math Tips

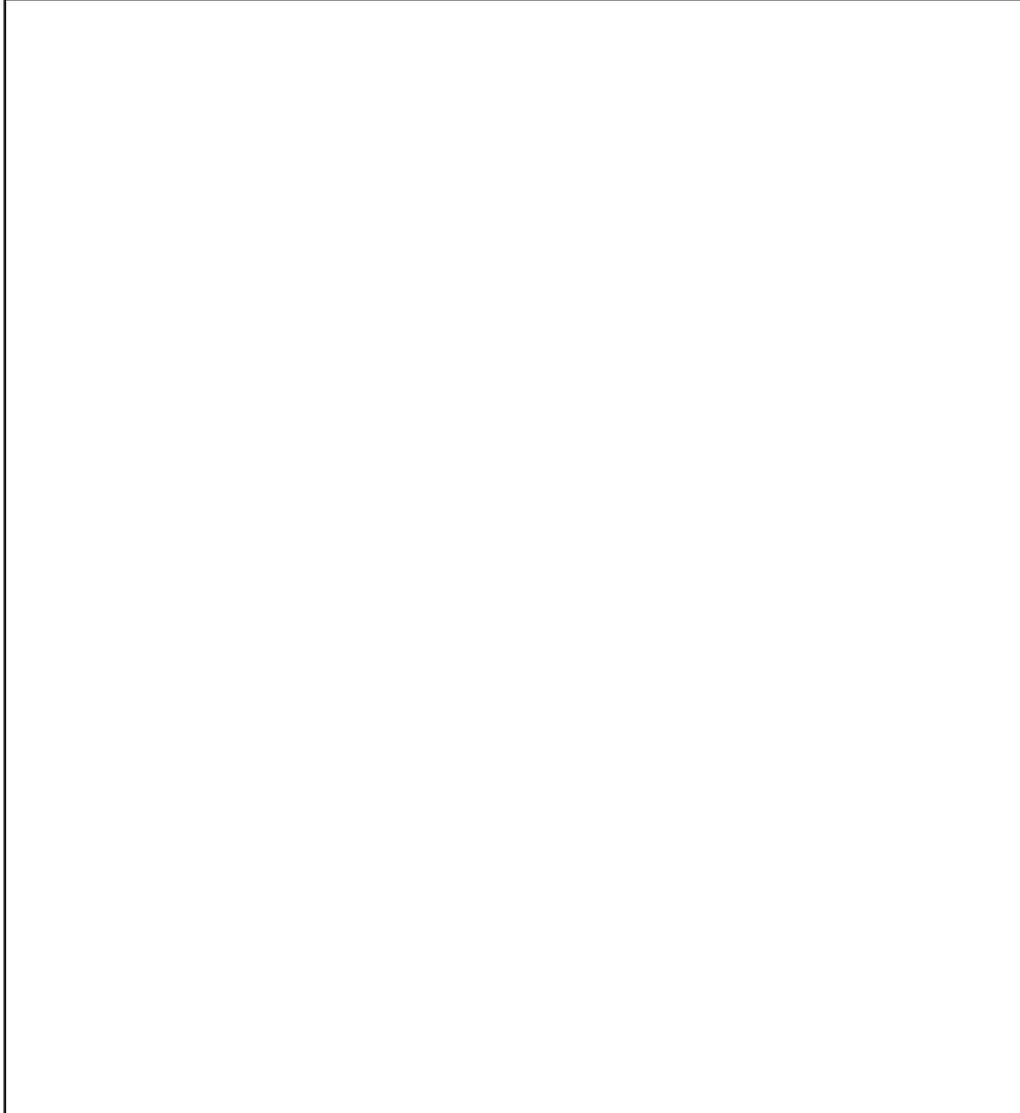
- Show a shape to your child, and then hide it. Challenge your child to draw the shape, and then show your example shape again to compare with your child's drawing. Repeat with other shapes.
Benefit: This activity develops shape recognition, as well as memory skills.
- Using shape books you already have or from a trip to the library, read them with your child. Encourage your child to make the shapes in the books.
Benefit: This activity reinforces shape attributes.
- With your child, look for shapes in buildings in the community. Maybe one of the shape books from the previous suggestion includes shapes found in buildings (if so, use that book here also).
Benefit: This provides shape recognition practice and develops math awareness in everyday life.

What's Ahead?

In Week 16, children will work with patterns. We look for and create them in music, movement, and common objects.

Here's What I Know

Have your child make a design using two different shapes. Ask your child about her or his design.



What to Look For

- Did your child use more than one type of shape?
- Can your child identify the shapes he or she drew?

**Building
Blocks**

Math News

Dear Family,

This week in *Building Blocks* we focused on patterns, an essential element of mathematics. Mathematics has been defined as “the science of patterns in number and shape.”

In addition to numerical and geometric patterns, children explored rhythmic patterns in class. They progressed from identifying to copying and then to creating patterns of various kinds.

With increased pattern awareness, children begin to recognize patterns in the environment and truly enjoy doing so. If possible during patterning weeks, have your child wear clothes with a simple repeating pattern (stripes of alternating colors, plaid designs, or patterned fabric, such as corduroy). Read the tips below for additional ways to explore patterns with your child.

Help-at-Home Math Tips

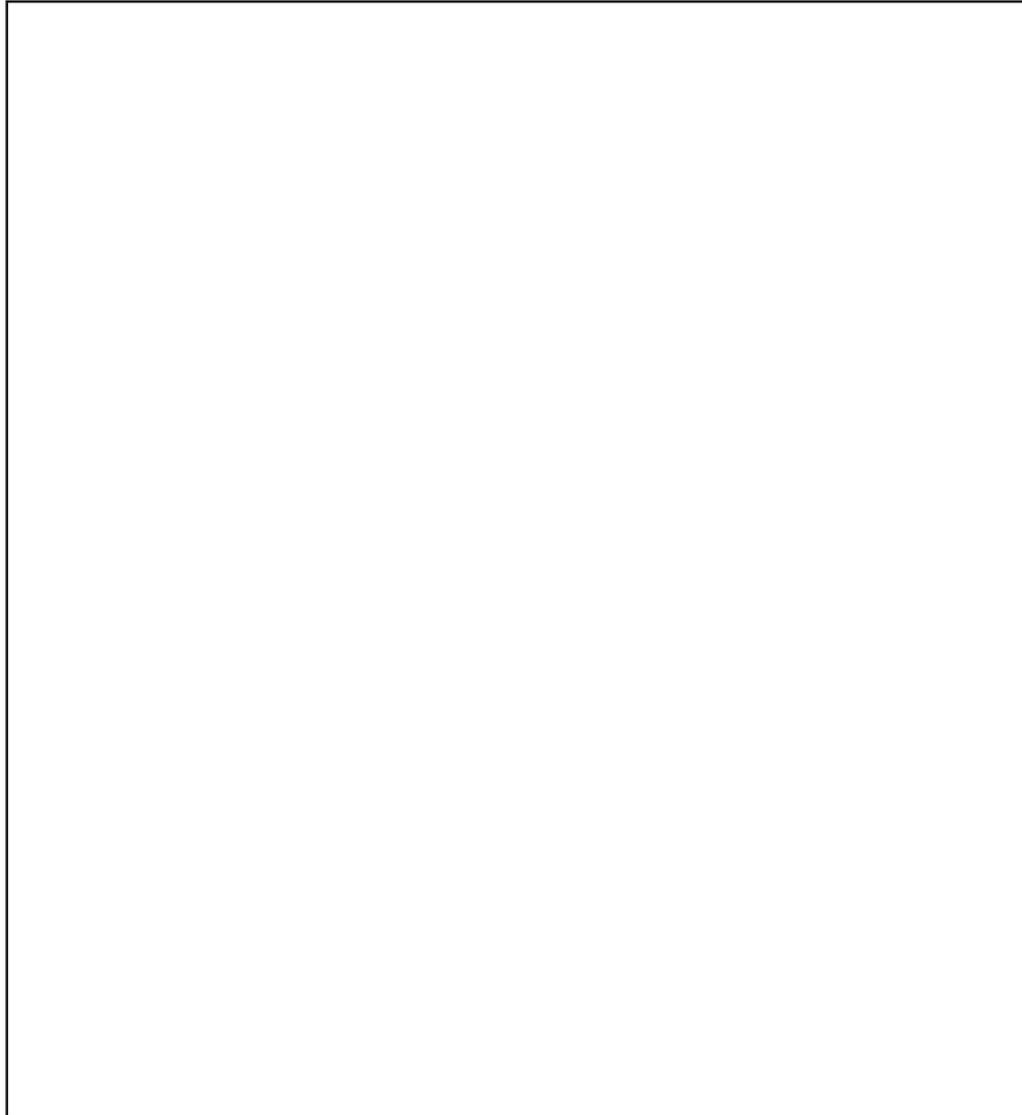
- Look and listen for patterns where you live. Clothes, curtains, sheets, and wallpaper often have repeating patterns. Listen for patterns in songs, telephones, clocks, and even footsteps.
Benefit: This helps develop an awareness of patterns and the variety of forms they can take.
- Make up a simple dance with your child using repeated steps (tap toe, kick, stomp, and so on) and gestures (clap, point down, reach up, and so on). For a challenge, specify left and right.
Benefit: This activity provides practice with creating patterns and reinforces spatial concepts (up, down, left, right, forward, back, and so on).
- Arrange food in a pattern on your child’s plate (for example, carrot stick, cheese cube, cracker, carrot stick, cheese cube, cracker, and so on). Ask your child to identify the pattern (the example provided is an ABC pattern).
Benefit: This activity provides practice with pattern identification.

What’s Ahead?

In Week 17, children will take a closer look at patterns as they learn how to identify a pattern’s core unit.

Here's What I Know

Ask your child to create a color pattern.



What to Look For

- Did your child create a pattern?
- How many colors are in the pattern?
- Can your child identify the pattern? (AB, ABC, or the like)

**Building
Blocks**

Math News

Dear Family,

In Week 17, children continued to find and create a variety of patterns with shapes, numbers, letters, and motions. Many of the activities focused on identifying a pattern's core unit, the part of a pattern that is repeated. For example, in *ABCABCABC*, the core unit is *ABC*. When asking a child to repeat a pattern, it is very helpful to model the core unit three times (as above). The emphasis on core units develops pattern understanding and reinforces the part-whole relationship.

Help-at-Home Math Tips

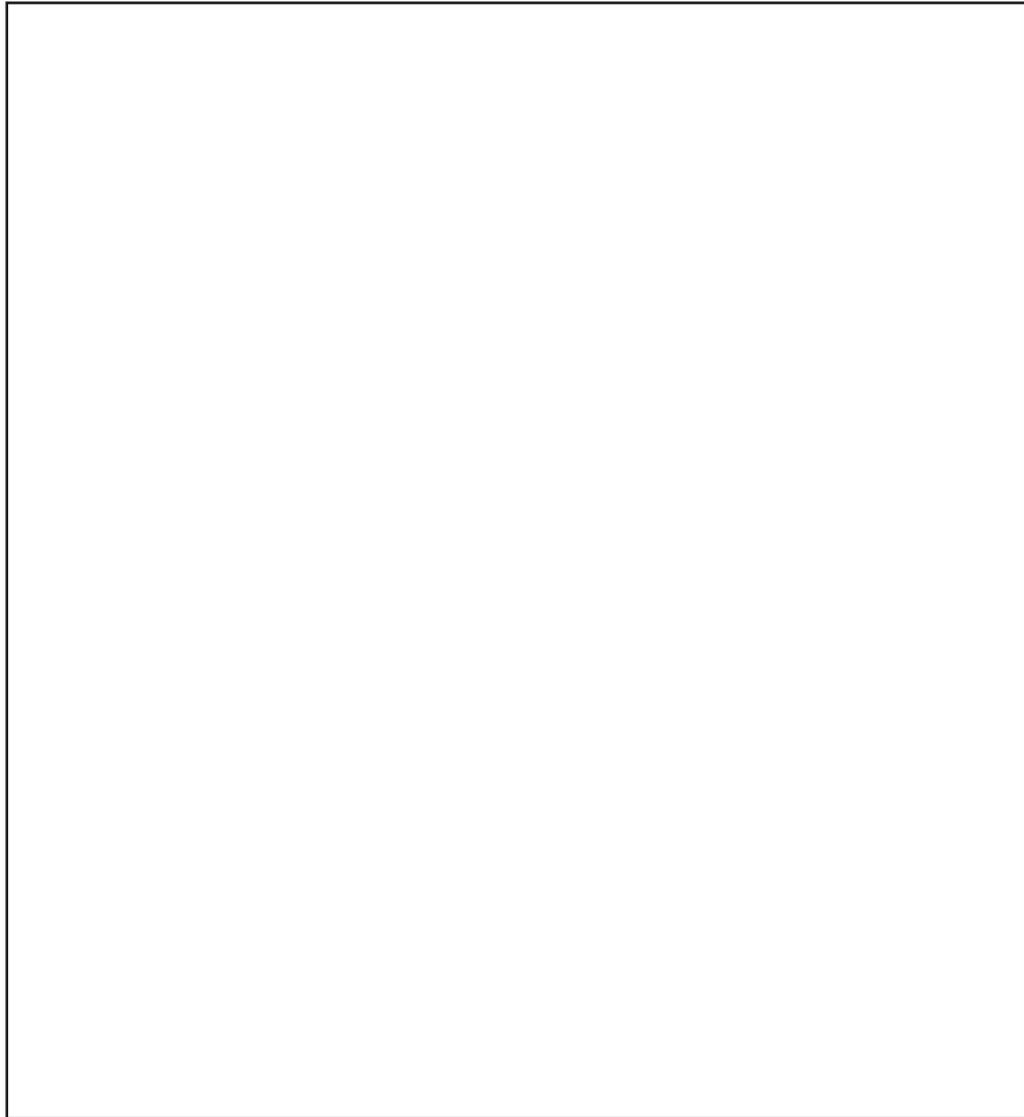
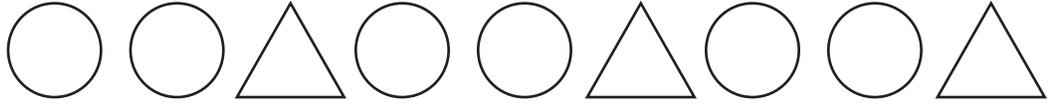
- Help your child find patterns outdoors. Look at fences, walls, poles, flags, and banners. Identify and discuss the core unit for each pattern you find.
Benefit: This provides practice with pattern identification.
- Use coins to make a simple core unit, such as penny, penny, nickel. Have your child extend the pattern by repeating the core unit at least three times.
Benefit: This activity provides practice with creating patterns, identifying core units, and discussing coins as units of money.
- Look for a pattern where you live, and identify the core unit, for example, in floor tiles.
Benefit: This activity provides practice with pattern and core unit identification.

What's Ahead?

In Week 18, children will practice subitizing (instantly recognizing the number of items in a small group). They will also review shapes and identify rules for sorting them.

Here's What I Know

Ask your child to draw the core unit of this pattern:



What to Look For

- Did your child correctly identify the core unit? (circle, circle, triangle)
- Can your child tell you how she or he found the core unit?



Math News



Dear Family,

This week in *Building Blocks*, children reviewed several number and geometry concepts to further develop their mathematical skills. Number activities continue to focus on counting and subitizing (the ability to quickly recognize the number in a small group). Geometry exercises included naming and sorting shapes, as well as using shapes to create pictures.

Help-at-Home Math Tips

- Let your child use inedible dough to form numerals. Ask your child to name each numeral he or she makes. After your child makes a numeral, challenge him or her to make the numeral that comes next.

Benefit: This provides practice with numeral recognition and the plus 1 pattern of counting.

- Help your child create a Shape Chart with four common shapes in one row and a blank box below each shape to make another row. Go for a walk in your neighborhood to look for shapes. Have your child name each shape he or she finds and make a mark below each shape on the chart. Afterward, help your child count the marks to find the total number for each shape found.

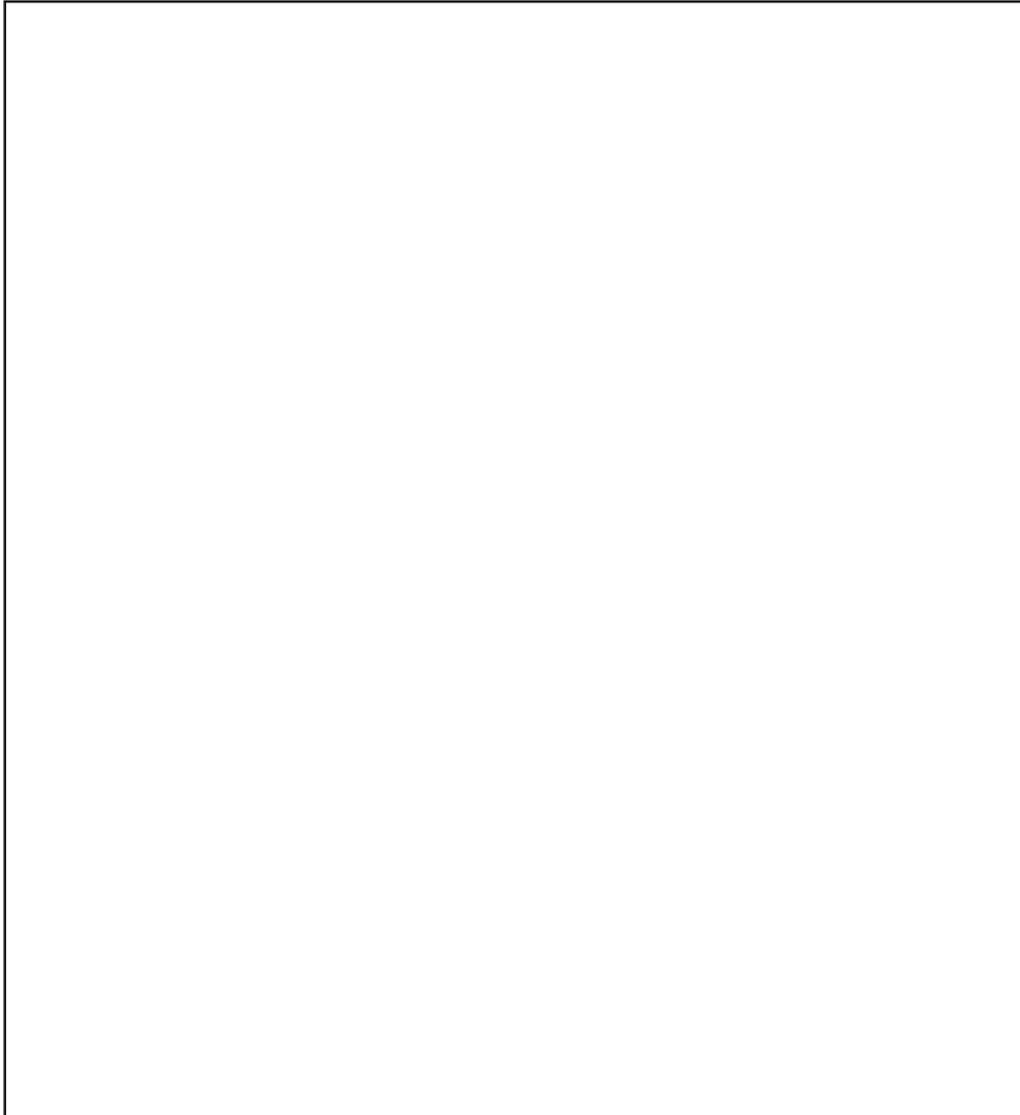
Benefit: This activity provides practice with identifying and naming shapes and counting.

What's Ahead?

In Week 19, children will build their number knowledge by counting and comparing small collections. The attached sheet outlines some activities to try at home to reinforce skills your child is learning at school.

Here's What I Know

Ask your child to draw a rectangle and a shape that is not a rectangle.



What to Look For

- Did your child draw two shapes? Was one shape a rectangle?
- Can your child tell you what makes a rectangle a rectangle? (A rectangle has two pairs of sides that are parallel and equal in length; it also has four right angles. If all sides are equal, the rectangle is also a square.)



Building
Blocks

Math News

Week 19 Home Link

Try these activities at home to help your child develop counting and number skills.

X-Ray Vision

What's needed: One set of cards numbered 1–5 or 1–10 (Use cards you made or the ace through 5 or 10 of one suit—all diamonds, for example—of playing cards.)

Directions:

1. Place cards face up in numerical order. Count them aloud with your child.
2. Turn cards facedown but keep them in order.
3. Point to any card, and then ask your child to use his or her X-ray vision, which is actually counting from 1 to the card you indicated, to tell you the number of the card.
4. Have your child turn over the card to see whether she or he is correct, and then replace the card facedown.

Knock It Down

Have your child use blocks, coins, or another safe, stackable material, to build a tower as high as she or he can. Help your child count the items before stacking them. Once the tower is complete, have your child gently knock it down, and help your child count the items again, emphasizing how the amount did not change.

Messy Counting

Spill up to ten buttons, or other easy-to-pick-up item, on a flat surface to form a messy (random) group. Challenge your child to count the items accurately, keeping track of those that have already been counted. If this task is too challenging, have your child move items to a separate pile as each one is counted.



Math News



Dear Family,

In Week 19, children further developed their counting skills. They practiced producing a set number of items, which requires keeping the target number in mind and stopping when it is reached. Another focus this week was accurately counting items in a random arrangement.

Children also compared collections of up to ten objects. Practice this skill at home with two stacks of coins, baskets of laundry, or piles of blocks. Ask which stack or pile has more, and then have your child count the items in each stack. Read the tips below for more counting and comparing reinforcement.

Help-at-Home Math Tips

- Practice counting patterns with your child by taking turns counting aloud. For example, when the pattern is 3, the first person counts “1, 2, 3,” the next person counts “4, 5, 6,” and so on. Set a goal number, such as 30, and see whether you can keep the pattern going until that number.
Benefit: This activity provides counting and pattern practice.
- Read counting books you already own or from the library, such as *Feast for 10* by Cathryn Falwell and *More, Fewer, Less* by Tana Hoban.
Benefit: This provides practice with counting, comparing, and reading.

What's Ahead?

In Week 20, children will expand and apply their comparing skills as they begin to explore measurement. We will talk about *length* as an attribute, and children will compare the lengths of common items.



Math News



Here's What I Know

Ask your child to draw a group of 8.

A large, empty rectangular box with a thin black border, intended for a child to draw a group of 8 items.

What to Look For

- Are there eight items? If not, how many items are there?
- Can your child accurately count the items?

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Math News



Dear Family,

This week in *Building Blocks* children began to explore measurement through comparisons. They compared item lengths, as well as container capacities. As we compare, children are encouraged to use appropriate vocabulary, such as *longer, taller, shorter, the same as*, and so on. Please use such words and phrases at home, and engage your child in making comparisons when possible (Whose shoes are longer? Is the fork or spoon shorter? Is this chair the same height as that chair?).

Help-at-Home Math Tips

- Cut a piece of yarn or string that is the length of your child's arm from shoulder to fingertip. Have your child find safe objects where you live that are longer than, shorter than, and the same length as his or her arm (the piece of yarn or string). Ask your child to estimate the length of an object before "measuring" it with the string. For example, "I think this pillow is about as long as my arm," or "I think this wooden spoon is shorter than my arm."

Benefit: This activity provides practice with measuring and comparing.

- Gather a collection of six to eight toys or other household items, and ask your child to place them in a line. Look at two items at a time in the line. Ask your child about the relationship between each pair of objects. For example, "The yo-yo is shorter than the toy car. The car is shorter than the flute. The flute is the same length as the puzzle," and so on.

Benefit: This provides practice with making comparisons and reinforces appropriate vocabulary.

What's Ahead?

In Week 21, children continue to build their measuring skills as they learn to combine smaller units of measure to determine the length of a larger object.

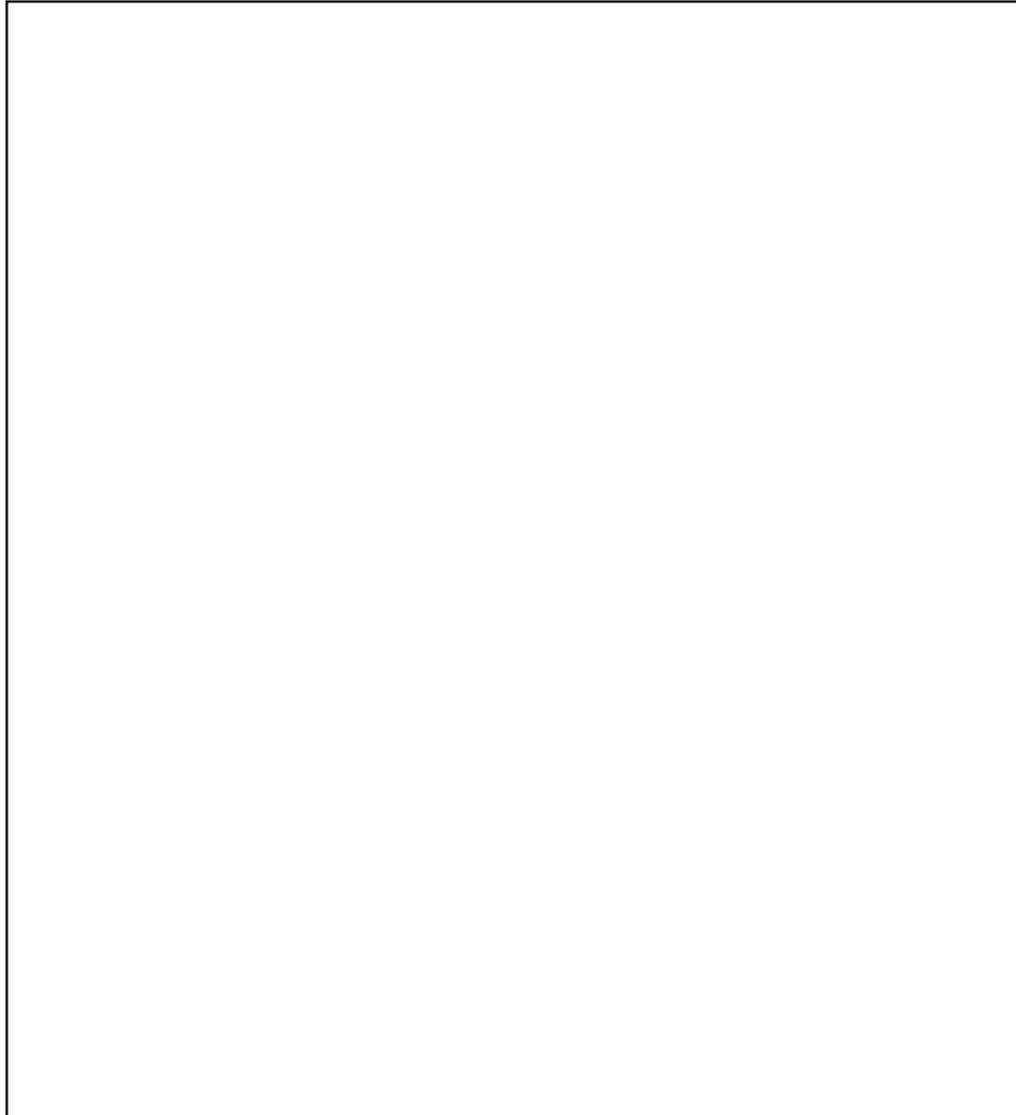


Math News



Here's What I Know

Ask your child to draw an object that is shorter than his or her arm.



What to Look For

- Is the object likely to be shorter than your child's arm?
- Can your child explain how he or she measured, or would measure, the object?

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Math News

Building
Blocks

Dear Family,

Measurement continued to be the focus of Week 21. Children learned a new strategy for measuring as they placed units end-to-end in order to determine the length “of an object.” Expand on this at home by looking at a ruler or tape measure with your child to identify inches and feet as units of measure, and help your child measure several objects. Children are not expected to measure by inches or feet in class; it is simply beneficial to familiarize them with actual units of measurement.

Help-at-Home Math Tips

- Help your child compare the weight of various objects, such as canned and boxed food items, different types of shoes, and various-sized blocks. Ask your child to estimate which of a pair of items is heavier by holding each one. If you have a scale, weigh the objects.

Benefit: This activity provides comparison and estimation practice.

- Time is a form of measurement that can be difficult for young children to grasp. Discuss time in terms of activities that occur after lunch, before dinner, and the like. You can also compare activities by discussing which takes longer, happens frequently, and so on. Make up time games, such as seeing who can stand on one foot longer, and count aloud together: “1 second, 2 seconds, 3 seconds,” and so on.

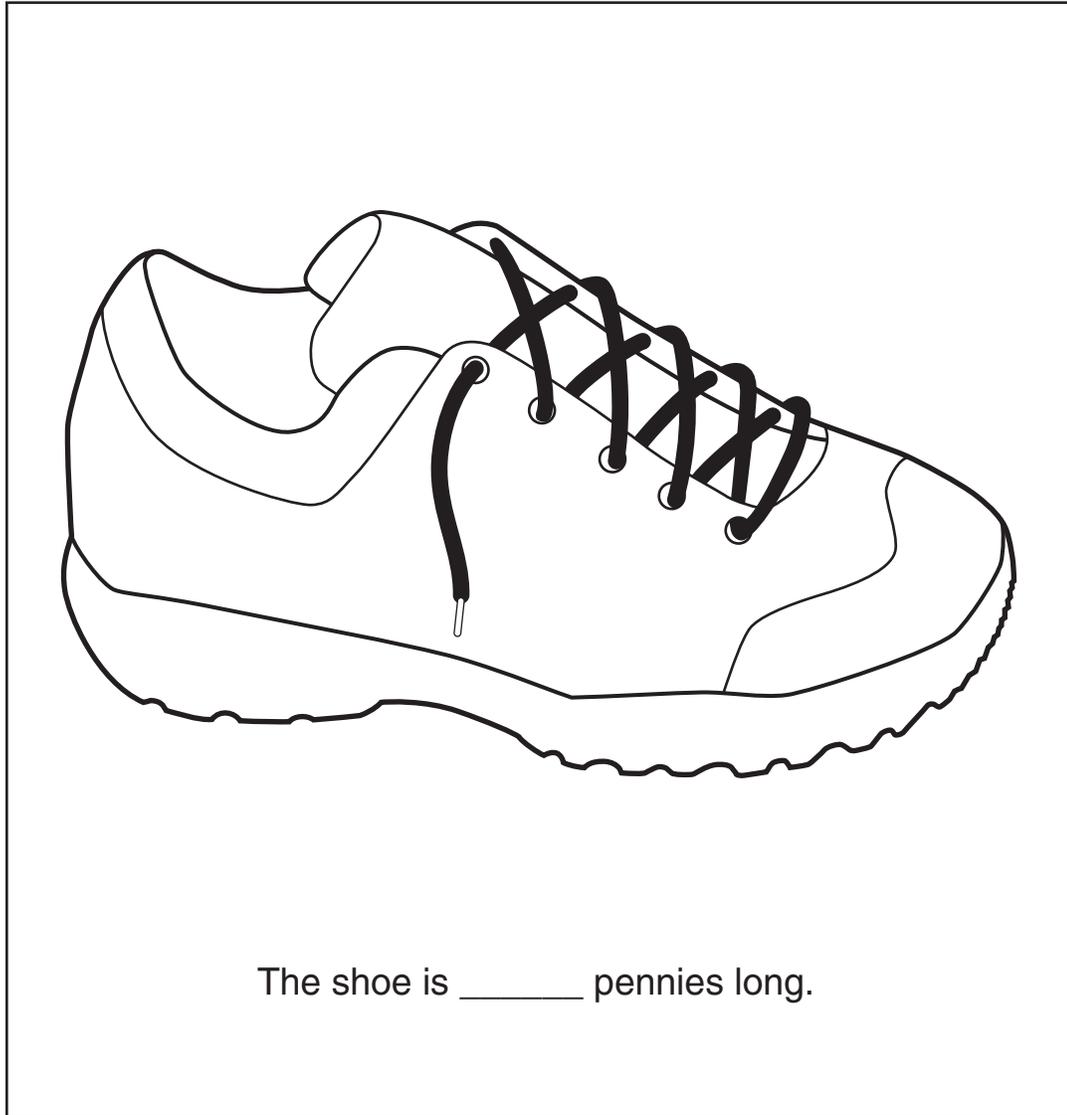
Benefit: This helps children become familiar with units of time, tools for measuring time, and comparison.

What’s Ahead?

In Week 22, children continue their study of measurement. They will compare and measure in units of length, capacity, weight, and time.

Here's What I Know

Ask your child to measure the length of one shoe using objects that are the same in size and come in large numbers, such as pennies. Then complete the sentence below.



What to Look For

- Did your child write a numeral on the line?
- Can your child tell you how he or she measured the length of the shoe?



Math News

Building
Blocks

Dear Family,

Children are beginning to move beyond simple comparisons to realize that measuring is finding a number that tells how much. Products are a good way to help your child link numerals to measurements by discussing weights on packaging. Even at a food store, if scales are available, help your child weigh items you plan to buy. Have your child add or take away pieces to help you achieve a desired amount on the scale. More tips follow for measuring activities.

Help-at-Home Math Tips

- Collect eight to ten empty containers of various shapes and sizes. Set a pitcher or large bowl of water outside (or on a surface that can get wet), and allow your child to explore the containers, comparing their capacities by pouring water from one into another. Help your child estimate how many small containers it will take to fill the largest container.
Benefit: This activity provides practice with estimating and measuring capacity. It also reinforces the concept of combining small units to measure something larger.
- Include your child in cooking, sewing, woodworking, and other supervised activities that involve measuring. Discuss the need for accurate measurements and the instruments to do so.
Benefit: This provides hands-on practice with measuring and reinforces the importance of measurement.

What's Ahead?

In Week 23, geometry and spatial relationships will be emphasized through our math activities. Children will manipulate shapes to complete puzzles and create patterns.

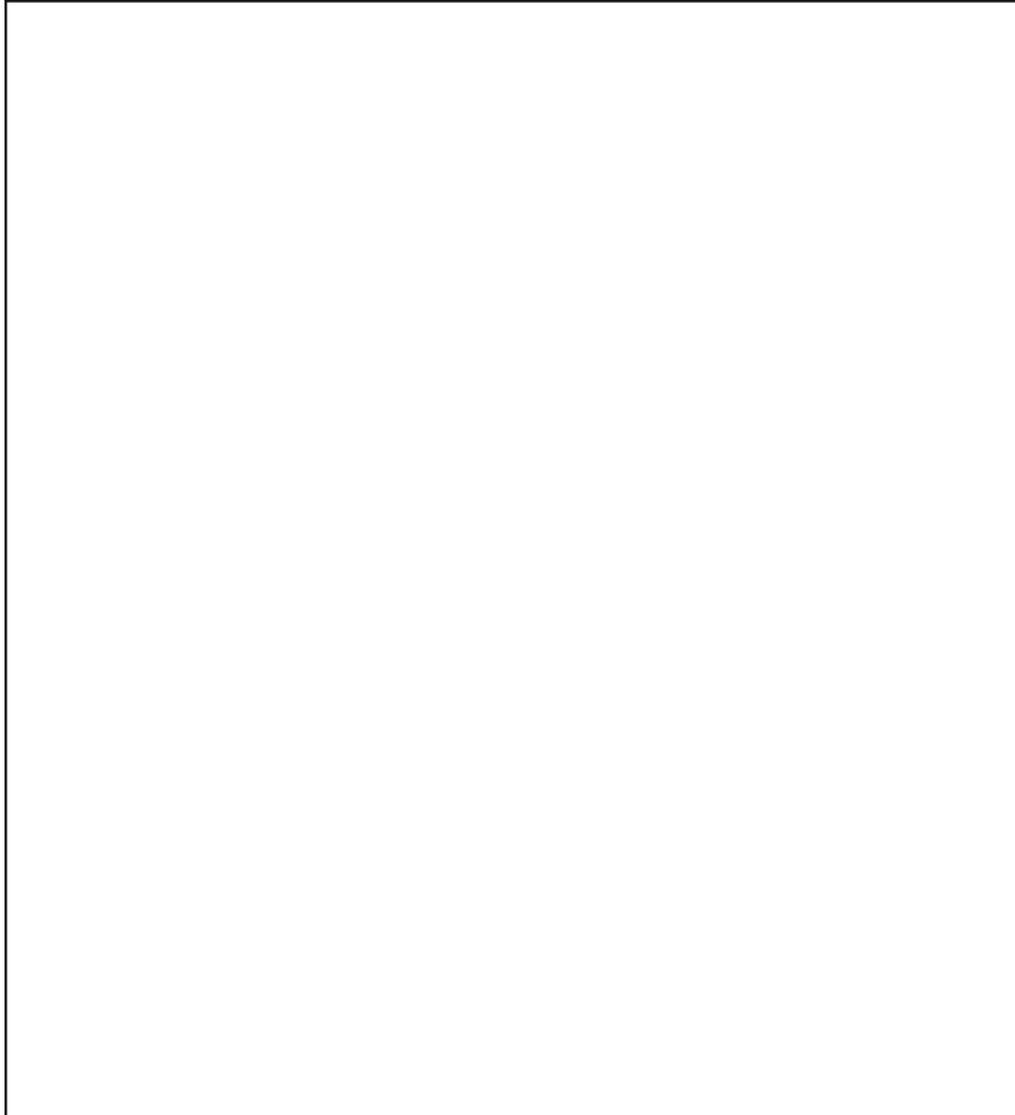


Math News



Here's What I Know

Ask your child to draw a group of 3 in which one item is small, one is medium, and one is large.



What to Look For

- Are there three items? If not, how many items are there?
- Are the items different sizes?
- Can your child tell you which item is smallest, which is in between, and which is biggest?



Math News



Dear Family,

In Week 23, math activities focused on building with shapes. Children manipulated shapes to compose puzzles, pictures, and patterns. Visualization is a key skill that children are developing as they create new shapes and search for “hidden” shapes in pictures and real-world structures. With your child, use the Shapes, Shapes, Shapes reference sheet to talk about which shapes can be combined to form other shapes, such as two trapezoids form a hexagon and two squares combine to form a rectangle.

Help-at-Home Math Tips

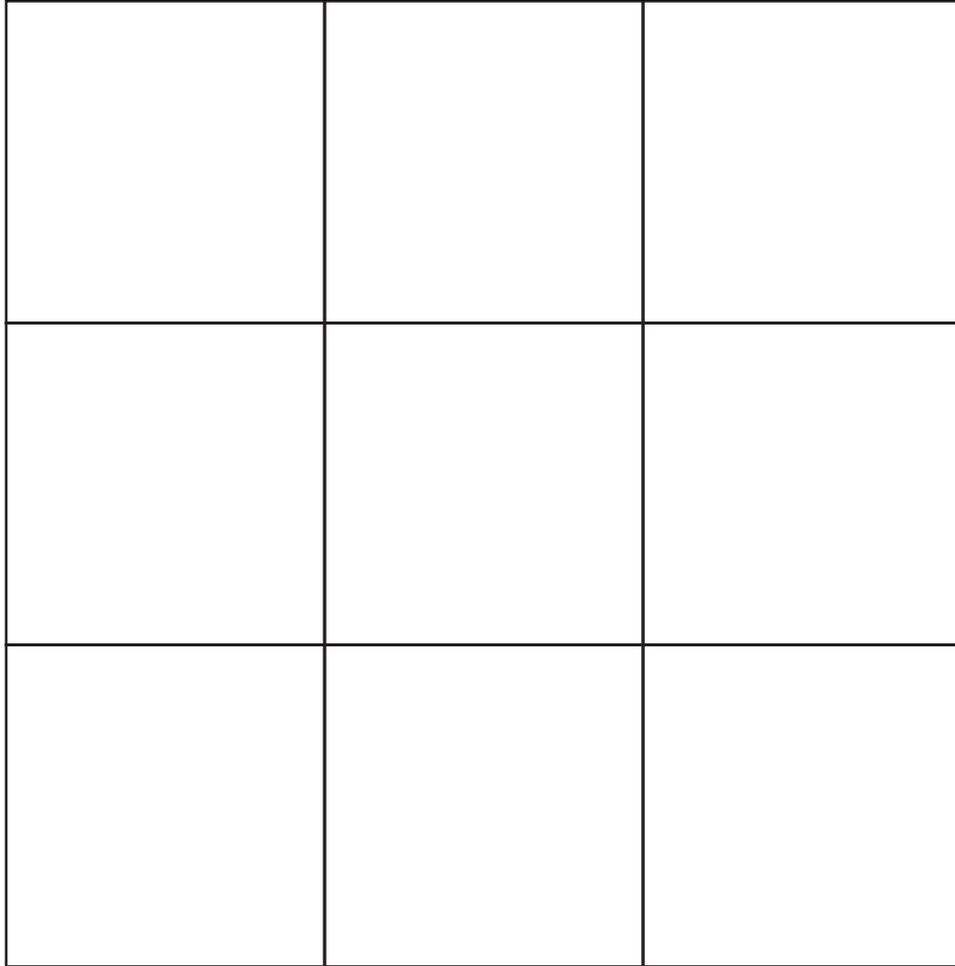
- Look around your community for shapes that combine to form a larger shape, figure, or structure. You might see rectangles in a building or triangles in the supports of a bridge.
Benefit: This activity provides practice with identifying and analyzing shapes.
- Play a game in which you challenge your child to “see” and manipulate shapes in his or her mind. For example, say, “Close your eyes, and picture a square. Now, cut across the square from a top corner to the opposite bottom corner. What do you see?” (a triangle)
Benefit: This develops shape visualization and recognition skills.

What’s Ahead?

In Week 24, children will practice and build their counting skills as they begin simple addition.

Here's What I Know

Ask your child to identify how many different-sized squares are in the following diagram (three).



There are ____ different square sizes in the picture.

What to Look For

- Did your child correctly identify three different sizes of squares? (The whole diagram is a square; four cells combined are a square; and each cell is a square.)
- Can your child tell you what makes a square a square? (A square has four sides that are the same length and four right angles.)



Math News



Dear Family,

This week in *Building Blocks*, children focused on understanding addition. Learning and recalling specific sums are not expected at this point; the goal is for children to grasp a basic meaning of addition, which is combining the number of objects in two different groups. Children use their fingers as they count the number of objects in two separate groups and solve the problem “How many are there altogether?”

Help-at-Home Math Tips

- Adapt familiar games to provide practice with adding. For example, instead of playing the regular Compare Game, play Double Compare, in which each player flips two cards and the player with the greater sums takes all cards played during that hand. Also, you might use two dice in a game that normally requires one.

Benefit: This activity provides addition practice.

- Let your child take two small handfuls of a snack, such as grapes or pretzels. Have your child add the number of items in each hand to figure out how many pieces he or she has altogether.

Benefit: This provides practice with adding and reinforces the concept of addition as combining the number of objects in two groups.

What's Ahead?

In Week 25, children will continue to work on addition as they practice comparing and ordering numbers.



Math News



Here's What I Know

Ask your child to draw a group of 3 and then a group of 4. Have him or her write the numeral that tells how many there are altogether.

A large, empty rectangular box with a thin black border, intended for a child to draw two groups of items (one with 3 items and one with 4 items) and write the total numeral.

What to Look For

- Are there two groups?
- Does one group contain three items and the other four?
- Can your child correctly add the number of items in the two groups?
- Did he or she write the numeral 7?

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Math News



Dear Family,

In Week 25, children practiced adding, comparing, and ordering numbers. They continue to add numbers with sums less than 10. Children were also introduced to ordinal numbers (first, second, third, and so on). They ordered numbers consecutively and identified missing numbers, such as what comes between third and fifth.

Help-at-Home Math Tips

- Involve your child in solving real-life addition problems. For example, ask your child to figure out how many dollars are needed to make a small purchase (round costs to the nearest dollar). Remind your child that it is okay to count on his or her fingers to find the sum.
Benefit: This activity provides practice with addition skills and reinforces the importance of addition (or math in general) in everyday situations.
- Line up eight stuffed animals facing the same direction. Have your child tell you which one is first, second, third, fourth, and so on until he or she reaches the end. For a challenge, remove an animal or two, and ask your child to name the missing number. See whether your child can name their positions in reverse starting with sixth, for example, and counting backward to first.
Benefit: This activity provides counting and ordering practice.

What's Ahead?

In Week 26, children will further develop their counting, adding, and subtracting skills. Children will practice number recognition and counting as they play Pizza Game 2, for which you will find an activity sheet with this letter. We hope you will enjoy playing the game at home with your child.



Math News



Here's What I Know

Ask your child to write two different numerals between 1 and 10, and then circle the larger numeral. (Children may also represent numerals by making an appropriate number of marks, such as tally marks, for each.)

A large, empty rectangular box with a thin black border, intended for a student to write their answer to the problem.

What to Look For

- Did your child represent two different numerals?
- Did your child correctly identify the greater numeral?

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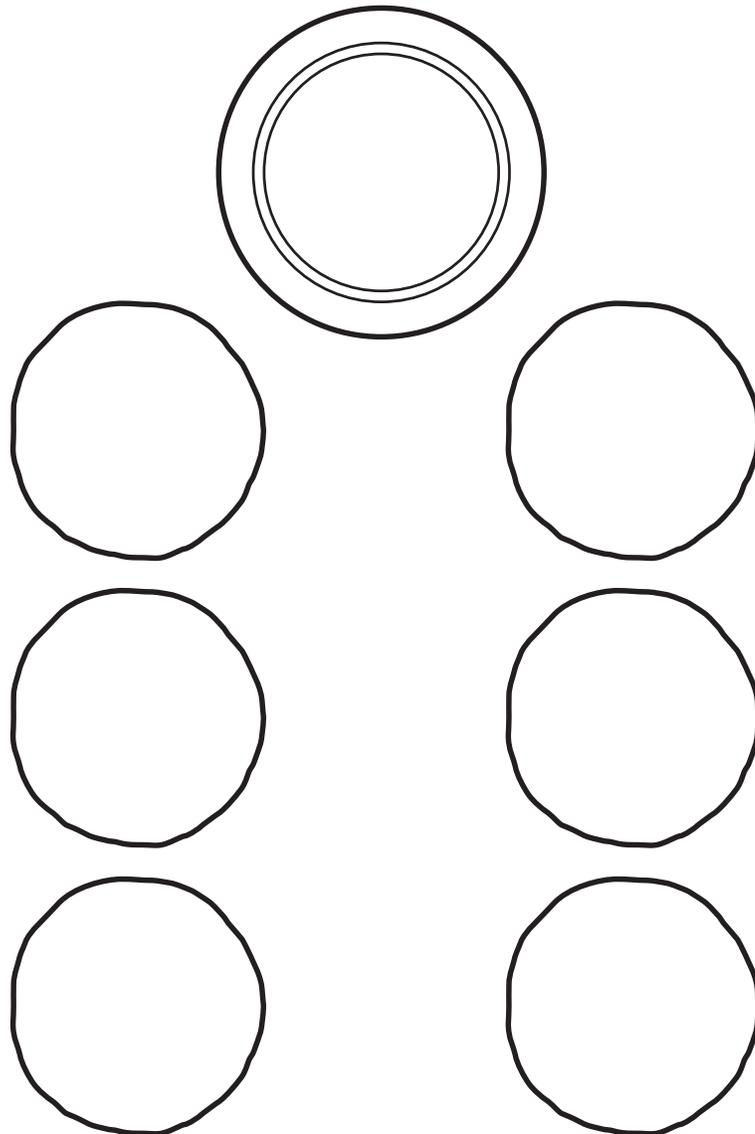
Week 26 Home Link: Pizza Game 2

Try this game at home to prepare your child for next week.

What's needed: Pizza Game 2 sheet, one die, and small red buttons or the like

Directions:

1. Each player has a copy of the Pizza Game 2 sheet. Decide on a target number, such as 5.
2. Player 1 rolls the die, and puts that many counters ("toppings") on the sheet's plate. Player 2 must agree that Player 1 is correct. If so, Player 1 moves the counters to a "pizza," trying to get 5 on each. For example, if 6 was rolled, the player puts 5 on one pizza and 1 on another.
3. Players take turns until they get the target amount on each of their pizzas.



**Building
Blocks**

Math News

Dear Family,

In Week 26, children used their counting, adding, and subtracting skills to solve a variety of problems. For several weeks, children have been practicing their math skills in a pretend Dinosaur Shop—taking turns as customers and salespeople, they practice correctly forming small groups to fill orders and counting out the correct amount of play money to pay for orders. This is a problem-solving game that children may enjoy playing at home also and, of course, you could always change the shop’s theme. You could use canned goods, household items, toys, and play money, setting the price at one dollar per item.

Help-at-Home Math Tips

- At snack time, let your child take a handful of crackers or other small food, and count them. Ask how many crackers your child would have if you gave him or her one more (or two more). Then, as each cracker is eaten, ask your child, “How many crackers are there now?”

Benefit: This activity provides practice with addition and subtraction.

- Read books about counting, adding, and/or subtracting, such as:

Anno’s Counting House by Mitsumasa Anno

How Many Snails?: A Counting Book by Paul Giganti

Takeaway Monsters by Colin Hawkins

Mission: Addition by Loreen Leedy

12 Ways to Get to 11 by Eve Merriam

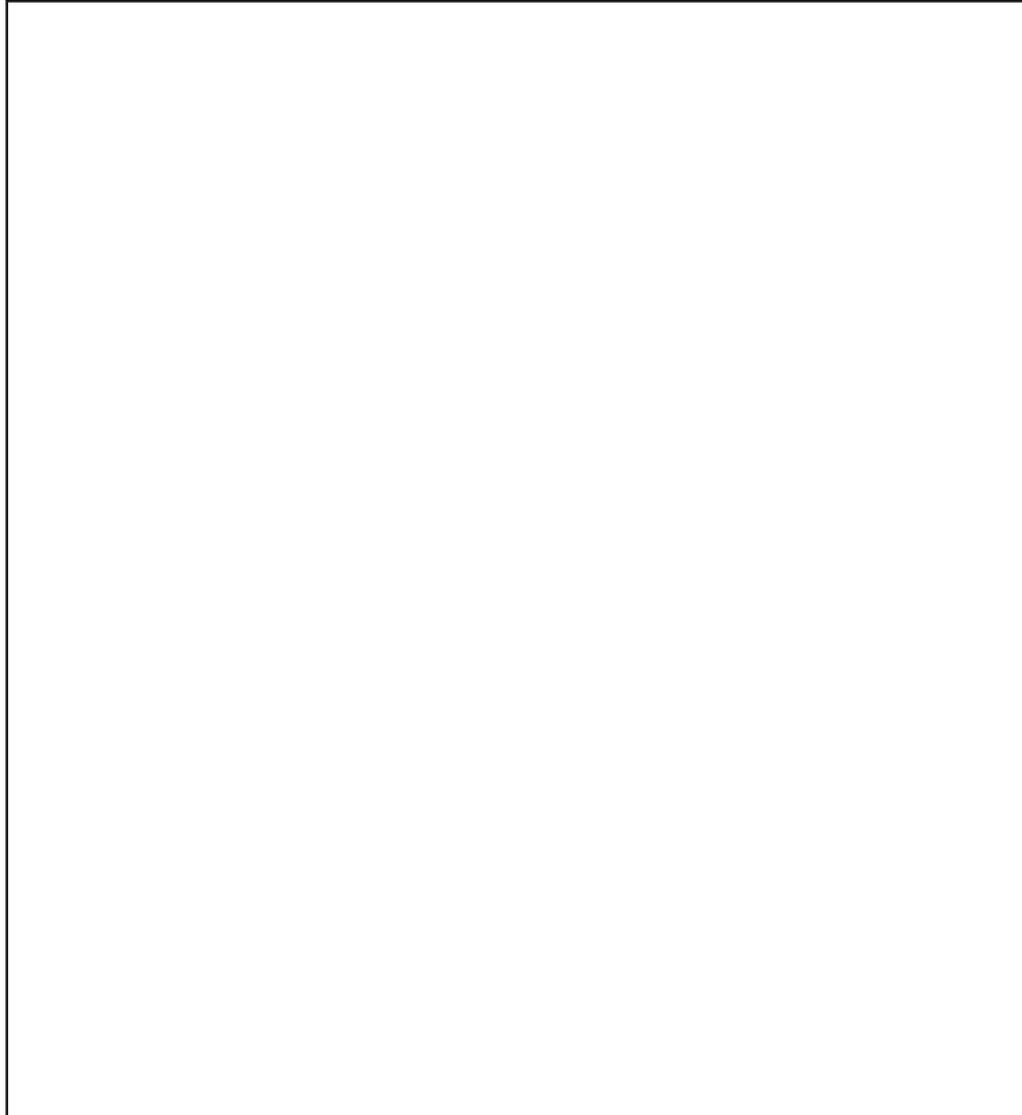
Benefit: This provides arithmetic and reading practice.

What’s Ahead?

In Week 27, children will continue to work with shapes. They will build shapes from parts, and then compose shapes to build pictures and designs. Included with this letter is a Pattern Blocks sheet that you and your child can use at home to reinforce our exploration of shapes at school.

Here's What I Know

Ask your child to first draw a bug with four legs, and then have him or her draw a bug with two more legs than the first.



What to Look For

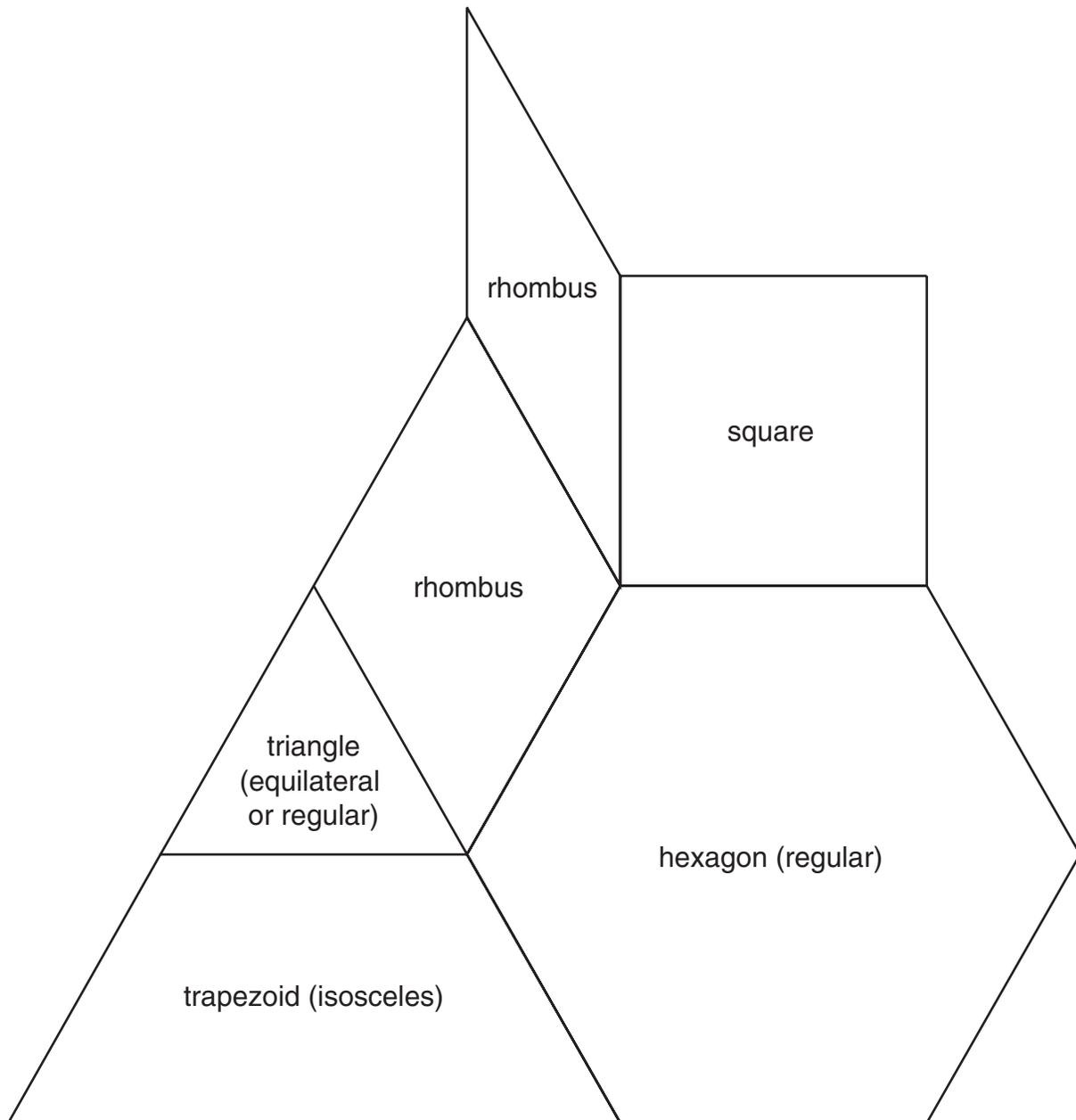
- Did your child draw two bugs?
- Does one bug have four legs and the other have six? Count their legs with your child.
- Can your child tell you the difference in the number of legs the bugs have?

Week 27 Home Link

Pattern Blocks

Before you begin, you may wish to make copies of this page.

Cut apart the pattern block shapes. Help your child combine individual shapes to make new shapes and designs or pictures.





Math News



Dear Family,

This week in *Building Blocks*, children focused again on geometry. They studied shape attributes in a variety of activities. As children's knowledge of shapes becomes more sophisticated, so does the vocabulary they use to describe shapes, such as *right*, *isosceles*, and *equilateral triangles*. Ask your child to create or identify and describe such shapes where you live.

Help-at-Home Math Tips

- Let your child build with household items such as boxes, empty milk cartons, and paper tubes. Discuss the different shapes and buildings he or she creates by combining these three-dimensional shapes.
Benefit: This activity provides practice with combining and identifying shapes.
- Read books about shapes, such as:
The Shape of Things by Dayle Ann Dodds
Picture Pie 2: A Drawing Book and Stencil by Ed Emberley
Changes, Changes by Pat Hutchins
A Box Can Be Many Things by Dana Meachen Rau
Benefit: This provides shape identification and reading practice.

What's Ahead?

In Week 28, children will continue to work with shape puzzles. The attached Home Link for next week shows an example of what children will be using in class—the Tangram. Please discuss and explore the Tangram at home as well.

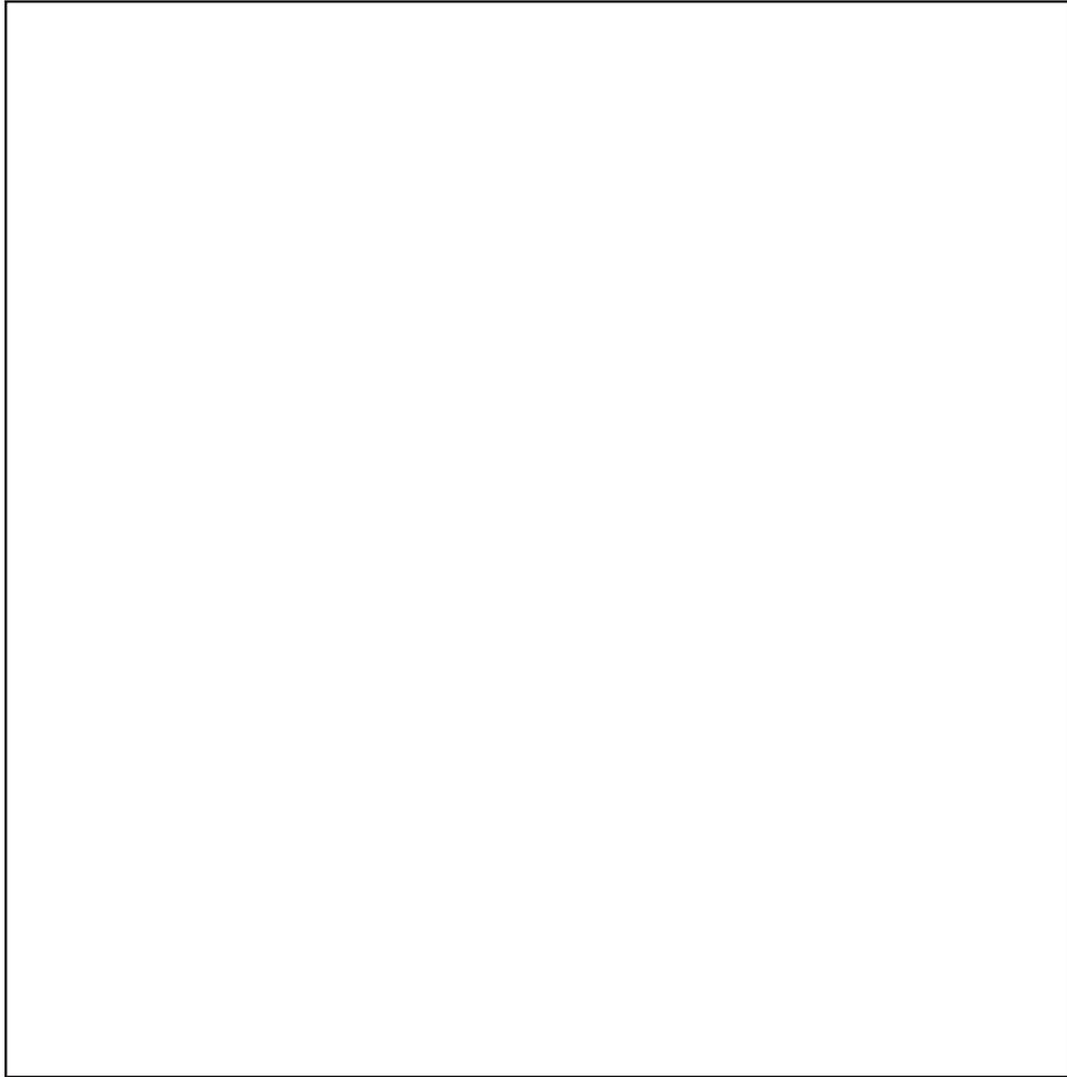


Math News



Here's What I Know

Ask your child to draw a line that makes the square below into two triangles.



What to Look For

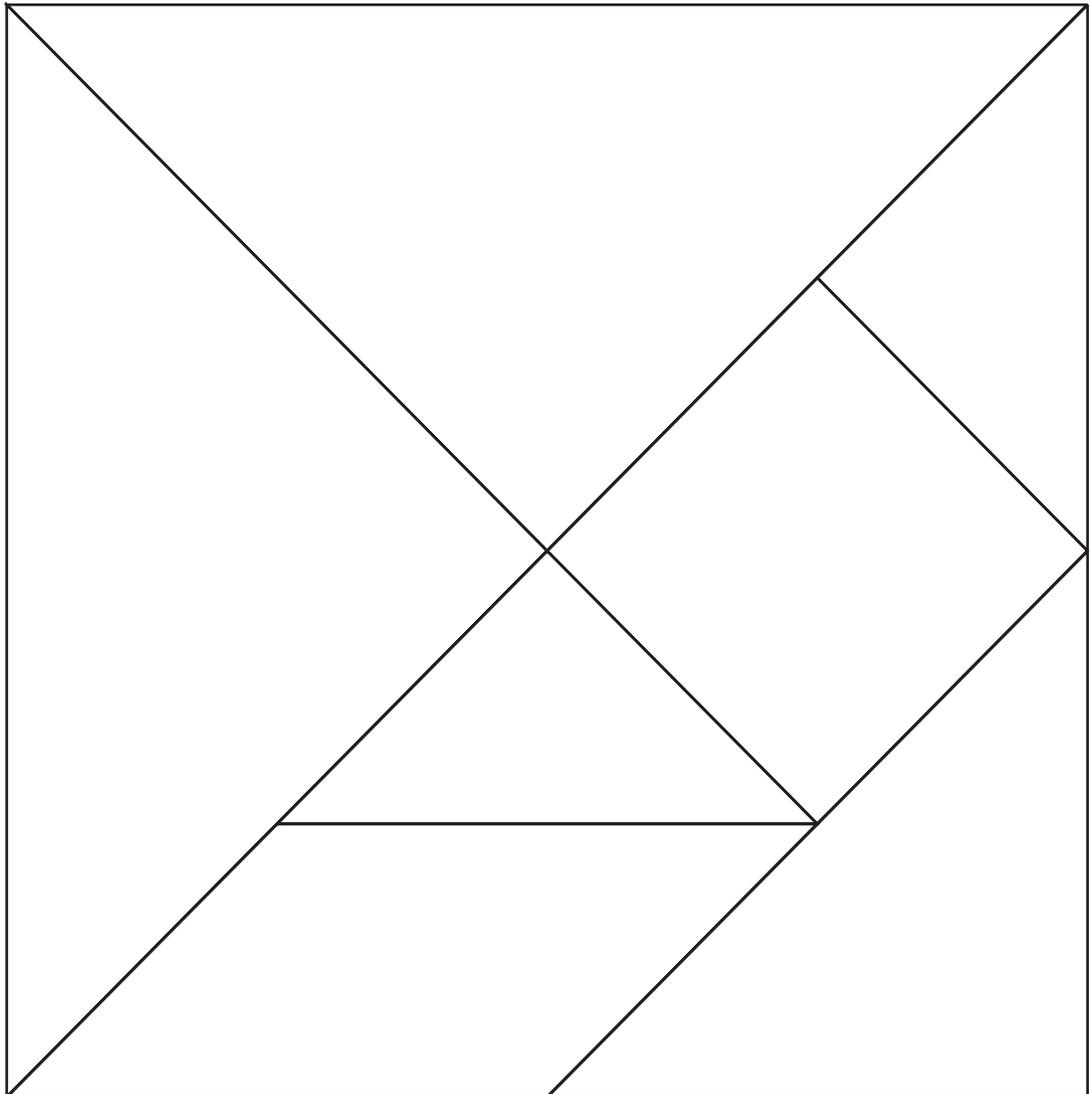
- Did your child draw a diagonal line that divides the square into triangles?
- Can your child tell you what kind of triangles they are? (right triangles)

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Week 28 Home Link

The Tangram

The tangram is an ancient Chinese puzzle. Many shapes and pictures can be made from the shapes of the tangram. Most of the shapes are triangles, but there is also a square and a parallelogram. Cut apart the shapes of the tangram. See what new shapes you and your child can make by combining two or more shapes from the tangram, and then see what pictures you can make. Finally, rebuild the original tangram with your child. Draw or copy it so you know how to form the original.



**Building
Blocks**

Math News

Dear Family,

In Week 28, children further developed their shape knowledge. Activities included solving computer puzzles that allowed children to slide, flip, and turn shapes. Manipulating shapes in such ways help children realize that changing a shape's orientation does not change the shape's name, its attributes, or the shape itself. This can be a difficult concept yet one that your children can grasp.

Help-at-Home Math Tips

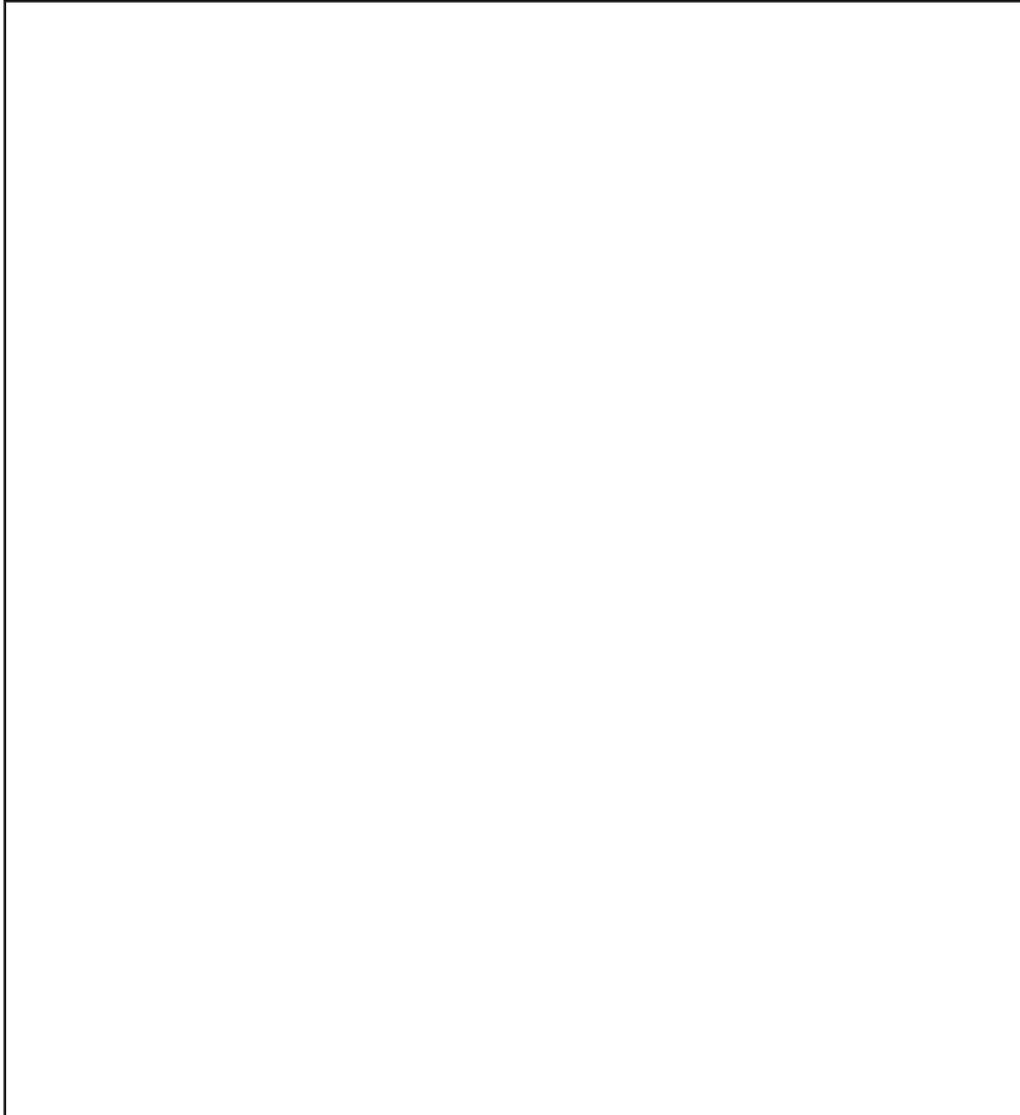
- Let your child make his or her own puzzle by tracing a variety of blocks. First, have your child fit six blocks together in any configuration as long as all blocks are touching. He or she then traces each block onto paper, moving them carefully to maintain the "puzzle." Help your child cut the shapes to make puzzle pieces.
Benefit: This activity provides practice with manipulating and combining shapes.
- Make different shapes with flat straws or toothpicks. If using straws, cut them to various lengths. Talk about the number of straws or toothpicks used to make each shape. Use the Tangram that was sent home to help your child recreate it with the straws or toothpicks.
Benefit: This provides practice with visualizing and creating shapes, as well as problem solving.

What's Ahead?

In Week 29, children will review a variety of math skills, with an emphasis on addition. Included with this letter is a Compare Game: Adding sheet, which reinforces the addition and number comparison skills we are working on in class. We hope you will enjoy playing this game with your child.

Here's What I Know

Ask your child to draw a four-sided shape that is a rectangle and then a four-sided shape that is *not* a rectangle.



What to Look For

- Did your child draw two shapes? If so, is one a rectangle?
- Can your child identify both shapes?
- Can your child tell you what makes a rectangle a rectangle? Can he or she tell you why the other shape is *not* a rectangle?



Math News

Building
Blocks

Week 29 Home Link

Compare Game: Adding

Number of Players: 2

What's needed: Two sets of cards with numerals 1–5 (use numerals up to 10 after your child masters adding 1–5)

Directions:

1. Mix the two sets of cards together, and deal them evenly facedown to each player.
2. Players take turns flipping their two top cards, and add the numerals to compare their sums. The player with the greater sum says “I have more!” and keeps all four cards. When sums are the same, each player flips two more cards to break the tie.
3. The game ends once all cards are played, and the player with more cards wins.



Math News



Dear Family,

This week in *Building Blocks*, children solved addition and subtraction problems. Counting forward and backward were other skills featured this week, as counting is a strategy most children use when learning to add and subtract. To help your child practice these skills, sing songs, such as “This Old Man” for counting forward and “Five Little Monkeys Jumping on the Bed” for counting backward. Use other songs you know or find at the library to help your child build counting skills.

Help-at-Home Math Tips

- Ask your child to show you how to make 4, using fingers on both hands, such as 2 and 2. Then have your child show you a different way to make 4 with two hands, such as 3 and 1. Repeat the process with 5–8.
Benefit: This activity provides practice with composing and adding numbers.
- Play the Compare Game: Adding that was sent home last week. For an extra challenge, make and use cards with dots that are randomly arranged (as opposed to in lines or rows). At the end of the game, count the number of pairs instead of individual cards.
Benefit: This provides practice with counting, adding, and comparing.

What's Ahead?

In Week 30, which is also the last week of *Building Blocks*, children will focus on combining numbers and taking them apart. Children will make number pictures, which are explained on the attached activity sheet.



Math News



Here's What I Know

Ask your child to draw a group that is more than 3 and less than 5.

A large, empty rectangular box with a thin black border, intended for a child to draw a group of items.

What to Look For

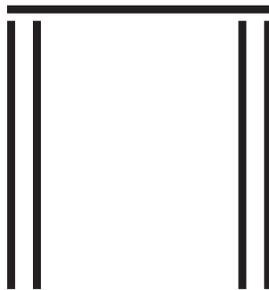
- Are there four items? If not, how many items are there?
- Can your child tell you how he or she figured out how many items to draw?

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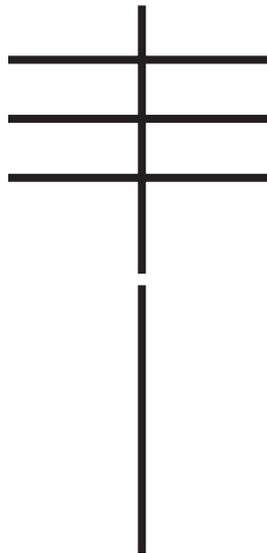
Week 30 Home Link

Number Pictures

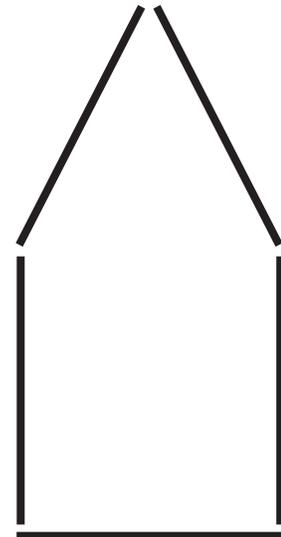
Have your child produce (count out) a certain number of flat straws or toothpicks and make a picture using just that many. When the picture is finished, ask your child to describe it in a way that includes number words. Here are some examples of pictures that can be made out of 5.



table



utility pole



shed

Once your child masters making pictures based on a particular number, have him or her move on to the next number and begin making new pictures.



Math News

Building
Blocks

Dear Family,

Week 30 is the final week of **Building Blocks**. Children reviewed many math concepts, such as combining and breaking apart numbers. For example, 5 can be “broken apart” into 4 and 1, 3 and 2, and so on. Number Pictures provide practice with this skill. After your child makes a number picture, remember to have him or her use numbers to describe it. The tips below offer additional suggestions for helping your child practice number composition at home.

Help-at-Home Math Tips

- Have your child count five small objects, such as pennies, into your hand. Tell your child you will hide some. Hide two of the objects, and ask your child how many you hid. Repeat this process, hiding any number of objects up to 5.
Benefit: This activity provides practice with adding and reinforces the concept of addition as the combination of numbers.
- Give your child one handful each of two types of snack, such as raisins and pretzels. Have your child form every possible combination of 4 using the two items (4 raisins and 0 pretzels, 3 raisins and 1 pretzel, 2 raisins and 2 pretzels, and so on). With each combination your child creates, ask how many there are of each type of snack and how many there are altogether.
Benefit: This provides practice with seeing a whole group in terms of its parts.

What's Ahead?

Hopefully lots of math fun for you and your child to share together lies ahead! We are proud of what children have accomplished this year and hope you will continue to help them develop their math knowledge and skills, emphasizing that math is a common and useful part of our lives. Thank you for supporting our efforts.



Math News



Here's What I Know

Ask your child to show two different ways to break apart 5.

A large, empty rectangular box with a black border, intended for a child to draw or write their work.A second large, empty rectangular box with a black border, identical to the one above, for another child's work.

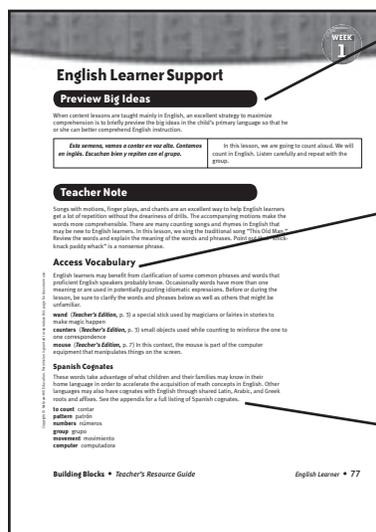
What to Look For

- Did your child show two different ways to break 5 into parts?
- Can your child tell you how many there are altogether in each box?

Using English Learner Support Materials

The English Learner Support in the *Teacher's Resource Guide* provides teachers with valuable tools to meet the needs of English learners. Often English learners understand the mathematics in a lesson but cannot communicate that understanding in English.

For each **Building Blocks** lesson, the English Learner Support pages include a lesson plan for teachers, teacher aides, or parent volunteers to Preview and Review the lesson for children learning English. Spanish is included for teacher convenience, although the same concepts can be translated to other languages.



Teacher's Resource Guide

Preview Big Ideas is designed to help teachers provide the big ideas of the lesson in the child's primary language. If children understand the big idea before the lesson begins, they can often follow along more coherently.

Access Vocabulary provides an overview of a lesson's common phrases, idioms, and colloquialisms that may not be familiar to English learners. Teachers who are aware of these terms and phrases can help English learners better understand the lesson concepts and, at the same time, develop vocabulary.

Spanish Cognates, words or root words that are the same or similar in English, help to take advantage of what children and their families may already know about mathematics.

When to Use English Learner Support Activities

The English Learner Support activities are intended to be used at the following times.

The Beginning of Each Week

Preview Big Ideas A routine can be established with English learners to gather together five minutes before math with the teacher, a teacher's aide, or parent volunteer to preview the big ideas.

During the Lesson

Teachers can address the **Access Vocabulary** and **Spanish Cognates** during the lesson by explaining and defining vocabulary and pointing out similarities between English and Spanish. This type of vocabulary instruction has been proven to be highly effective.

English Learners

When students do not speak the language of the school, they face some enormous challenges. They must learn the new language, keep up with the other students in the academic arena, and adjust to a new set of expectations and cultural routines that may not be clear to the child or the family. When the school does not speak the language of the student, the school community faces demanding challenges as well. They must find ways to communicate with the student and the family starting with the enrollment process, continuing instructionally throughout the year. Teachers must provide comprehensible academic input by adjusting their instructional techniques and the school community needs to be as clear and explicit as possible about its expectations for behavior, participation and learning, keeping in mind that the child may be accustomed to a very different system of educational norms.

The most powerful instruction for English is that which is designed on a blueprint of inclusion. This allows English learners to interact with proficient speakers of English who serve as language models and provide authentic practice for speaking and listening.

English Learner Support

Preview Big Ideas

When content lessons are taught mainly in English, an excellent strategy to maximize comprehension is to briefly preview the big ideas in the child's primary language so that he or she can better comprehend English instruction.

Esta semana, vamos a contar en voz alta. Contamos en inglés. Escuchan bien y repiten con el grupo.

In this lesson, we are going to count aloud. We will count in English. Listen carefully and repeat with the group.

Teacher Note

Songs with motions, finger plays, and chants are an excellent way to help English learners get a lot of repetition without the dreariness of drills. The accompanying motions make the words more comprehensible. There are many counting songs and rhymes in English that may be new to English learners. In this lesson, we sing the traditional song "This Old Man." Review the words and explain the meaning of the words and phrases. Point out that "knick-knack paddy whack" is a nonsense phrase.

Access Vocabulary

English learners may benefit from clarification of some common phrases and words that proficient English speakers probably know. Occasionally words have more than one meaning or are used in potentially puzzling idiomatic expressions. Before or during the lesson, be sure to clarify the words and phrases below as well as others that might be unfamiliar.

wand (*Teacher's Edition*, p. 3) a special stick used by magicians or fairies in stories to make magic happen

counters (*Teacher's Edition*, p. 3) small objects used while counting to reinforce the one to one correspondence

mouse (*Teacher's Edition*, p. 7) In this context, the mouse is part of the computer equipment that manipulates things on the screen.

Spanish Cognates

These words take advantage of what children and their families may know in their home language in order to accelerate the acquisition of math concepts in English. Other languages may also have cognates with English through shared Latin, Arabic, and Greek roots and affixes. See the appendix for a full listing of Spanish cognates.

to count contar

pattern patrón

numbers números

group grupo

movement movimiento

computer computadora

English Learner Support

Preview Big Ideas

Vamos a practicar contar objetos tocando a cada uno mientras decimos el número en la secuencia. Cuando contamos juntos, trata de contar al compás con los demás.

We are going to practice counting objects by touching them as we say each number in the counting sequence. When counting together, try to stay in rhythm with the whole class.

Teacher Note

This week we continue to work with number and helping English learners communicate number concepts in common situations. Ask children, “How old are you?” In some languages, the question is structured differently. For example, in Spanish the question is, “How many years do you have?” In some cultures, a child is counted to be one year old when they are born. When you ask the question, “How old are you?” explain to English learners that this is the way we ask someone his or her age. Model the answer frame, “I am ___ years old.” Remind students that in American culture, it is considered impolite to ask an adult their age.

Access Vocabulary

ELL students may benefit from clarification of some common phrases and words that proficient English speakers probably know. Occasionally words have more than one meaning or are used in potentially puzzling idiomatic expressions. Before or during the lessons this week, be sure to clarify the following words and phrases:

How old are you? (*Teacher’s Edition*, p. 22) What is your age? How many years of age are you?

incorrect (*Teacher’s Edition*, p. 22) not correct; a mistake; an error

paper plates (*Teacher’s Edition*, p. 24) Disposable plates that are made of stiff paper or plastic foam, often used when eating outdoors.

outdoors (*Teacher’s Edition*, p. 24) outside, in the yard

Spanish Cognates

These words take advantage of what children and their families may know in their home language in order to accelerate the acquisition of math concepts in English. Other languages may also have cognates with English through shared Latin, Arabic, and Greek roots and affixes.

photograph fotografía

plates platos

counters contadores

rhythm ritmo

pair par

class clase

objects objetos

English Learner Support

Preview Big Ideas

When content lessons are taught mainly in English, an excellent strategy to maximize comprehension is to briefly preview the big ideas in the child's primary language so that he or she can better comprehend English instruction.

Hoy vamos a contar a diez. Cada vez que contamos un número, tocamos un objeto. Recuerda que el último número que cuentas es también el total.

Today we will practice counting up to ten. Each time we count, we are going to touch an object. Remember that the last number you say in the counting sequence is the total.

Teacher Note

For English learners at the early levels of proficiency it is very important to check for understanding using simple ways for them to respond. For example, yes/no questions, either/or questions, and those that ask the child to point to the correct answer. The Compare Number Pizzas activity is an excellent example. Be aware that sometimes English learners will nod affirmation when we ask them whether they understand, but it is imperative to check for depth of understanding by asking them to respond to specific tasks and questions to be sure.

Access Vocabulary

English learners may benefit from clarification of some common phrases and words that proficient English speakers probably know. Occasionally words have more than one meaning or are used in potentially puzzling idiomatic expressions. Before or during the lesson, be sure to clarify the following words and phrases:

to match (*Teacher's Edition*, p. 35) to pair items that go together

count aloud (*Teacher's Edition*, p. 35) count so that your voice can be heard

pattern (*Teacher's Edition*, p. 36) a predictable repetition of numbers, colors, or shapes

rows (*Teacher's Edition*, p. 39) straight lines of objects

Spanish Cognates

These words take advantage of what children and their families may know in their home language in order to accelerate the acquisition of math concepts in English. Other languages may also have cognates with English through shared Latin, Arabic, and Greek roots and affixes. See the appendix for a full listing of Spanish cognates.

to count contar

family familia

cube cubo

paper papel

pattern patrón

round redondo

English Learner Support

Preview Big Ideas

When content lessons are taught mainly in English, an excellent strategy to maximize comprehension is to briefly preview the big ideas in the child's primary language so that he or she can better comprehend English instruction.

En esta lección, vamos a aprender los nombres de unas formas que vemos todos los días. Trabajaremos con círculos y cuadrados. También identificaremos cuando las formas son exactamente iguales de tamaño.

This week, we are going to learn the names of some shapes you see every day. We will work with circles and squares. We will also recognize when two shapes are exactly the same size.

Teacher Note

Not all languages have the same set of phonemes and not all shared phonemes are in the same position across languages. For example, this week we tell children to match shapes. The word *match* ends with /ch/ and the word *shapes* begins with /sh/. The combination of these two sounds may be difficult for some English learners to hear and reproduce. Enunciate carefully the two words to help English learners make these distinctions.

Access Vocabulary

English learners may benefit from clarification of some common phrases and words that proficient English speakers probably know. Occasionally words have more than one meaning or are used in potentially puzzling idiomatic expressions. Before or during the lesson, be sure to clarify the following words and phrases:

to match (*Teacher's Edition*, p. 54) pair objects that are the same or that go together

exact match (*Teacher's Edition*, p. 54) a pair of objects that are exactly the same size and shape

shuffle the papers (*Teacher's Edition*, p. 59) Mix up the papers so they are not in the same order.

Spanish Cognates

These words take advantage of what children and their families may know in their home language in order to accelerate the acquisition of math concepts in English. Other languages may also have cognates with English through shared Latin, Arabic, and Greek roots and affixes.

figures figuras

to trace trazar

color color

circles círculos

round redondo

English Learner Support

Preview Big Ideas

When content lessons are taught mainly in English, an excellent strategy to maximize comprehension is to briefly preview the big ideas in the child's primary language so that he or she can better comprehend English instruction.

Esta semana, vamos a trabajar con formas, especialmente el rectángulo. Recuerda que el triángulo tiene 3 lados. El rectángulo tiene 4 lados y cuatro ángulos rectos.

In this lesson, we are going to work with shapes, especially triangles and rectangles. Remember that a triangle has three sides. A rectangle has four sides and four right angles.

Teacher Note

Graphic organizers are an excellent tool for helping English learners work with higher level thinking, without requiring extensive ability to produce the English language. Draw a Venn diagram on the board or chart paper to compare the characteristics of triangles and rectangles. If children don't know the word to describe their idea encourage them to show with their hands or draw a picture. Another option is to share their idea by working with a partner who speaks the same primary language or a tutor who can paraphrase in English.

Access Vocabulary

English learners may benefit from clarification of some common phrases and words that proficient English speakers probably know. Occasionally words have more than one meaning or are used in potentially puzzling idiomatic expressions. Before or during the lesson, be sure to clarify the following words and phrases:

trial and error (*Teacher's Edition*, p. 77) When you try something and it turns out incorrectly, then you try again using a different way.

How do you know for sure? (*Teacher's Edition*, p. 71) What evidence do you have that tells you that you are correct?

uncover (*Teacher's Edition*, p. 72) to take off the cover to see what is underneath

snapshot (*Teacher's Edition*, p. 72) a quick photograph

Spanish Cognates

These words take advantage of what children and their families may know in their home language in order to accelerate the acquisition of math concepts in English. Other languages may also have cognates with English through shared Latin, Arabic and Greek word roots and affixes. See the appendix for a full listing of Spanish cognates.

directions direcciones

equal igual

triangle triángulo

perimeter perímetro

angles ángulos

English Learner Support

Preview Big Ideas

When content lessons are taught mainly in English, an excellent strategy to maximize comprehension is to briefly preview the big ideas in the child's primary language so that the student can better comprehend English instruction.

Esta semana continuamos practicar contar en voz alta. Contaremos grupos pequeños de objetos y los comparamos. Veremos que contar nos ayuda saber cuántos y describir orden.

This week we will continue to practice counting aloud, counting out small groups of objects, and comparing them. We will see that counting helps tell us how many and describes order.

Teacher Note

This week, we use the pizza as an example. Some English learners may not be familiar with this food, so this will be an introduction to a typical American food. If possible, include other familiar food examples coming from the cultures in your classroom during the week.

Access Vocabulary

English learners may benefit from clarification of some common phrases and words that proficient English speakers probably know. Occasionally words have more than one meaning or are used in potentially puzzling idiomatic expressions. Before or during the lesson, be sure to clarify the words and phrases below.

pizza toppings (*Teacher's Edition*, p. 86) food put on top of a pizza

Uncover the hidden choice (*Teacher's Edition*, p. 87) Remove the cover from something that is hidden to see it and know what it is.

I counted (*Teacher's Edition*, p. 87) tells the listener it already happened; past tense

Spanish Cognates

These words take advantage of what children and their families may know in their home language in order to accelerate the acquisition of math concepts in English. Other languages may also have cognates with English through shared Latin, Arabic, and Greek roots and affixes.

cube cubo

space espacio

patterns patrones

quantity cantidades

counters contadores

rhythm ritmo

English Learner Support

Preview Big Ideas

When content lessons are taught mainly in English, an excellent strategy to maximize comprehension is to briefly preview the big ideas in the child's primary language so that he or she can better comprehend English instruction.

Esta semana comparamos dos grupos emparejando los objetos uno por uno. También podemos comparar dos grupos cuando contamos los objetos en cada grupo y comparamos cuántos hay en cada uno.

This week we will compare two groups by matching up the items one to one. We can also compare by counting the objects in each group, and then comparing both groups.

Teacher Note

English learners may become confused by the many expressions used in English with the word **count**. For example, in this lesson we **count out** objects to help build one-to-one correspondence. We say that we can **count on** someone when we know that they will do what they say they will. In later grades, we will learn how to **count on** in mathematics. To avoid confusion for English learners be sure to explain the new expression and use it repeatedly as they count out objects in this lesson.

Access Vocabulary

English learners may benefit from clarification of some common phrases and words that proficient English speakers probably know. Occasionally words have more than one meaning or are used in potentially puzzling idiomatic expressions. Before or during the lesson, be sure to clarify the following words and phrases:

Goldilocks (*Teacher's Edition*, p. 102) The name of the girl in the story of the three bears.

Gold is a bright yellow color and locks, in this context, mean "hair."

get just enough (*Teacher's Edition*, p. 102) not too many nor too few; getting enough of an item means you don't have extra

the winner (*Teacher's Edition*, p. 105) the person or team who wins a competition

flip the top card (*Teacher's Edition*, p. 109) quickly turn over the top card

Spanish Cognates

These words take advantage of what children and their families may know in their home language in order to accelerate the acquisition of math concepts in English. Other languages may also have cognates with English through shared Latin, Arabic, and Greek roots and affixes.

horizontal horizontal

connection conexión

plastic bottles botellas de plástico

seconds segundos

pair par

English Learner Support

Preview Big Ideas

When content lessons are taught mainly in English, an excellent strategy to maximize comprehension is to briefly preview the big ideas in the child’s primary language so that he or she can better comprehend English instruction.

Esta semana vamos a contar otra vez. Vamos a practicar comparar grupos de objetos para decidir cuál grupo sea más grande, tiene más objetos, y cuál grupo sea más pequeño, cuál tiene menos objetos.

This week we are going to do lots more counting. We are going to practice comparing groups of objects to figure out which group is bigger (has more objects) and which group is smaller (has fewer objects).

Teacher Note

Many math concepts such as subtraction, estimation, and equality rely on comparison. Learning how to discuss these concepts requires knowledge of English academic language. In English, comparatives and superlatives are formed by adding the endings -er and -est in monosyllabic adjectives. For example, someone may say “She is taller than her brother.” Practice this form with English Learners while you show them examples of each one.

POSITIVE	COMPARATIVE	SUPERLATIVE
Big Small	Bigger Smaller	Biggest Smallest

Access Vocabulary

English learners may benefit from clarification of some common phrases and words that proficient English speakers probably know. Occasionally words have more than one meaning or are used in potentially puzzling idiomatic expressions. Before or during the lesson, be sure to clarify the following words and phrases:

- deal the cards** (*Teacher’s Edition*, p. 119) to distribute one card to each player in the game
- matches** (*Teacher’s Edition*, p. 120) when a numeral and a group of objects go together; are the same
- Am I correct?** (*Teacher’s Edition*, p. 123) Do I have the correct answer?

Spanish Cognates

These words take advantage of what children and their families may know in their home language in order to accelerate the acquisition of math concepts in English. Other languages may also have cognates with English through shared Latin, Arabic, and Greek roots and affixes.

- train** tren
- combinations** combinaciones
- plates** platos
- numeral** numeral

- line** línea
- different** diferente

English Learner Support

Preview Big Ideas

When content lessons are taught mainly in English, an excellent strategy to maximize comprehension is to briefly preview the big ideas in the child's primary language so that he or she can better comprehend English instruction.

Esta semana vamos a aprender más sobre las formas. Vamos a emparejar las formas, aprender sus nombres y describir cómo son las formas. El triángulo tiene tres lados. La sílaba tri- en triángulo quiere decir tres.

This week we are going to learn more about shapes. We are going to match up shapes, learn their names and how to describe shapes. A triangle has three sides. The *tri-* in triangle means “three.”

Teacher Note

Working in cooperative groups is an excellent strategy for English learners because they need many opportunities to practice speaking the new language. Working with peers is far less stressful than being called upon to speak in front of the entire class. Some English learners will want to speak with others in their primary language. This is very helpful because they can check their own understanding and check with others to be sure they understand the task.

Access Vocabulary

English learners may benefit from clarification of some common phrases and words that proficient English speakers probably know. Occasionally words have more than one meaning or are used in potentially puzzling idiomatic expressions. Before or during the lesson, be sure to clarify the following words and phrases:

that match each other (*Teacher's Edition*, p. 134) the same as the other; the same attributes

How do you know? (*Teacher's Edition*, p. 136) What evidence do you have that this is true? What is the clue? What tells you that you are correct?

English Learner Support

Preview Big Ideas

When content lessons are taught mainly in English, an excellent strategy to maximize comprehension is to briefly preview the big ideas in the child's primary language so that he or she can better comprehend English instruction.

Esta semana vamos a aprender los nombres de más formas, como el círculo. El círculo no tiene ningunas líneas rectas.

This week we are going to learn the names of more shapes, such as the circle. The circle does not have any straight lines.

Teacher Note

An excellent strategy to use with English learners is to use gestures to show what you mean when you are giving directions or sharing a story with the class. By stretching your arms to show something is big or gesturing that something is small, it reinforces this new vocabulary and makes it more memorable. With the lessons on shapes, you can draw the figures in the air and form them with your hands whenever you are talking about them.

Access Vocabulary

English learners may benefit from clarification of some common phrases and words that proficient English speakers probably know. Occasionally words have more than one meaning or are used in potentially puzzling idiomatic expressions. Before or during the lesson, be sure to clarify the words and phrases below.

something that makes them alike (*Teacher's Edition*, p. 152) similar, like one another
flip their cards (*Teacher's Edition*, p. 153) quickly turn over cards
winner (*Teacher's Edition*, p. 153) the player or team that wins the game

Spanish Cognates

These words take advantage of what children and their families may know in their home language in order to accelerate the acquisition of math concepts in English. Other languages may also have cognates with English through shared Latin, Arabic, and Greek roots and affixes. See the appendix for a full listing of Spanish cognates.

circle círculo
figure figura
correct correcto
rhombus rombo
dramatize dramatizar
round redondo

English Learner Support

Preview Big Ideas

When content lessons are taught mainly in English, an excellent strategy to maximize comprehension is to briefly preview the big ideas in the child's primary language so that he or she can better comprehend English instruction.

Esta semana, vamos a practicar el contar y jugar con números y actividades con números.

This week we are going to practice counting and play games with numbers and number activities.

Teacher Note

Playing games is an excellent way for young children to practice new concepts and the vocabulary that goes with it. English Learners may not have experience with common games played in the United States. Review with them the game routines, such as taking turns, deciding who goes first and what to do in the case of a tie.

Access Vocabulary

English learners may benefit from clarification of some common phrases and words that proficient English speakers probably know. Occasionally words have more than one meaning or are used in potentially puzzling idiomatic expressions. Before or during the lesson, be sure to clarify the following words and phrases:

winner (*Teacher's Edition*, p. 167) the person or team who wins a competition

How do you know? (*Teacher's Edition*, p. 167) What do you see? What evidence do you have that tells you the answer is correct?

faceup (*Teacher's Edition*, p. 167) Playing cards have a design on one side and a number or picture on the other side. When cards are facing up we can see the number information.

Spanish Cognates

These words take advantage of what children and their families may know in their home language in order to accelerate the acquisition of math concepts in English. Other languages may also have cognates with English through shared Latin, Arabic, and Greek roots and affixes.

count contar
numeral numeral
groups grupos
objects objetos
symbol símbolo

English Learner Support

Preview Big Ideas

When content lessons are taught mainly in English, an excellent strategy to maximize comprehension is to briefly preview the big ideas in the child's primary language so that he or she can better comprehend English instruction.

Continuamos practicar contar a diez. También practicamos saber como corregirlo cuando hacemos un error. Emparejamos un objeto con un número cuando contamos, a ver cuántos objetos hay.

Throughout this week, we will continue to count to 10 and practice knowing when we have made a mistake so that we can correct it. We will work at matching one object with each number we count to see that counting tells us how many objects there are.

Teacher Note

This week you are going to work with a puppet, Mr. Mixup. Puppets are an excellent way to help English Learners practice speaking in front of a group because the focus is on the character, not directly on the child. Explain that the words *mix up* means “blended together.” *Mixed-up* means “confused; making mistakes.”

Access Vocabulary

English learners may benefit from clarification of some common phrases and words that proficient English speakers probably know. Occasionally words have more than one meaning or are used in potentially puzzling idiomatic expressions. Before or during the lesson, be sure to clarify the following words and phrases:

little birdies (*Teacher's Edition*, p. 186) In English, we sometimes add /ē/ to the end of a word to make a diminutive or affectionate name; dear little birds

count an item twice (*Teacher's Edition*, p. 188) to count two times; double

match (*Teacher's Edition*, p. 185) Pairing two or more alike objects or numbers

Spanish Cognates

These words take advantage of what children and their families may know in their home language in order to accelerate the acquisition of math concepts in English. Other languages may also have cognates with English through shared Latin, Arabic, and Greek roots and affixes.

classify clasificar

error error

cubes cubos

sequence secuencia

English Learner Support

Preview Big Ideas

When content lessons are taught mainly in English, an excellent strategy to maximize comprehension is to briefly preview the big ideas in the child's primary language so that he or she can better comprehend English instruction.

Esta semana, vamos a trabajar con un patrón importante, el más uno. Cuando recitamos los números contadores, es un ejemplo del patrón de más uno. En el patrón más uno, cada número agrega uno más para hallar el siguiente número en el patrón.

This week we are going to work with an important pattern called plus one. When we recite the counting numbers, this is an example of the plus one pattern. In the plus 1 pattern, each number adds one more to find the next number in the pattern.

Teacher Note

This week we learn the finger play “Five Little Monkeys” and use hands and fingers to reinforce counting and taking away or counting down. For English learners, review the name of each finger and the parts of the hand, such as the palm, back of the hand, knuckles, wrist, nails and each of the fingers (thumb, index finger, middle finger, ring finger and pinky).

Access Vocabulary

English learners may benefit from clarification of some common phrases and words that proficient English speakers probably know. Occasionally words have more than one meaning or are used in potentially puzzling idiomatic expressions. Before or during the lesson, be sure to clarify the following words and phrases:

most (*Teacher's Edition*, p. 193) the set with more than any other set has

sum (*Teacher's Edition*, p. 193) the total when adding numbers

stairs (*Teacher's Edition*, p. 198) the steps we climb to go up in a building

Spanish Cognates

These words take advantage of what children and their families may know in their home language in order to accelerate the acquisition of math concepts in English. Other languages may also have cognates with English through shared Latin, Arabic, and Greek word roots and affixes.

vertical vertical

horizontal horizontal

order orden

describe describir

English Learner Support

Preview Big Ideas

When content lessons are taught mainly in English, an excellent strategy to maximize comprehension is to briefly preview the big ideas in the child's primary language so that pupils can better comprehend English instruction.

Esta semana aprendemos más formas. Damos un paseo en busca de cosas comunes que tengan los atributos de las formas que aprendemos. Recuerda que un triángulo tiene tres lados. Un rectángulo tiene cuatro lados y cuatro esquinas.

This week we will learn more about shapes. We will take a shape walk to look for things that we see everyday that have the attributes of the shapes we are learning. Remember that a triangle has three sides. A rectangle has four sides and four corners.

Teacher Note

Graphic Organizers are excellent for helping English learners extend the concepts they are learning without placing excessive language demands on students of early proficiency levels. Make a chart with five columns. Place each shape at the top of one of the columns. Draw underneath common objects that have this shape.

Access Vocabulary

English learners may benefit from clarification of some common phrases and words that proficient English speakers probably know. Occasionally words have more than one meaning or are used in potentially puzzling idiomatic expressions. Before or during the lesson, be sure to clarify the following words and phrases:

guess (*Teacher's Edition*, p. 211) to say what you think the answer is
concentration (*Teacher's Edition*, p. 217) to focus on or think very hard about something;
 the name of a matching game

Spanish Cognates

These words take advantage of what children and their families may know in their home language in order to accelerate the acquisition of math concepts in English. Other languages may also have cognates with English through shared Latin, Arabic, and Greek roots and affixes.

rhombus rombo
diamond diamante
rectangle rectángulo
trapezoid trapecio

English Learner Support

Preview Big Ideas

When content lessons are taught mainly in English, an excellent strategy to maximize comprehension is to briefly preview the big ideas in the child's primary language so that he or she can better comprehend English instruction.

Esta semana vamos a aprender más sobre las formas. Algunas formas tienen nombres grandes pero tu eres grande y yo sé que puedes aprenderlos. Cada forma se puede describir por sus atributos, que son las características especiales.

This week we are going to learn more about describing shapes. Some have big names but you are big now and I know you can learn them. Each shape can be described by its attributes, the things that make it special.

Teacher Note

In this lesson, we focus on the attributes of shapes which requires that students practice describing. English learners at early levels of proficiency may have a limited English vocabulary of describing words. Teach English learners to use their five senses as an organizer for description. For example, tell what something looks like, feels like, sounds like, smells like and, if appropriate, tastes like.

Access Vocabulary

English learners may benefit from clarification of some common phrases and words that proficient English speakers probably know. Occasionally words have more than one meaning or are used in potentially puzzling idiomatic expressions. Before or during the lesson, be sure to clarify the words and phrases below.

mystery pictures (*Teacher's Edition*, p. 231) pictures of things you do not know but are curious to find out

feely box (*Teacher's Edition*, p. 231) the fun game of feeling an object inside to figure out what it is

mistake (*Teacher's Edition*, p. 230) an unintentional error, an incorrect answer

to sort (*Teacher's Edition*, p. 232) to separate objects into categories or groups by attribute such as color or shape or size

Spanish Cognates

These words take advantage of what children and their families may know in their home language in order to accelerate the acquisition of math concepts in English. Other languages may also have cognates with English through shared Latin, Arabic, and Greek roots and affixes.

to count contar

mystery misterio

figure figura

to identify identificar

activities actividades

English Learner Support

Preview Big Ideas

When content lessons are taught mainly in English, an excellent strategy to maximize comprehension is to briefly preview the big ideas in the child's primary language so that he or she can better comprehend English instruction.

Esta semana vamos a trabajar con patrones que se repitan. Podemos hacer diseños bonitos con patrones que se repitan. A nuestros ojos les gusta ver diseños que podemos predecir que sigue lo que es una destreza muy importante en las matemáticas.

This week we are going to work with patterns that repeat. We can make beautiful designs when we use repeating patterns. Our eyes like to see designs where we can predict what comes next. Learning to tell what comes next in a pattern is a very important skill in math.

Teacher Note

Help English learners develop familiar word patterns along with their work on repeating shape patterns, rhythm patterns, and color patterns. For example, *at-bat-at-cat-at-hat-at or it-bit-it-hit-it-fit-it*.

Access Vocabulary

English learners may benefit from clarification of some common phrases and words that proficient English speakers probably know. Occasionally words have more than one meaning or are used in potentially puzzling idiomatic expressions. Before or during the lesson, be sure to clarify the following words and phrases:

stringing beads (*Teacher's Edition*, p. 249) putting beads on a string

Hands On Math Center (*Teacher's Edition*, p. 247 and throughout the year) a classroom center where children work with materials they touch and move

stripes (*Teacher's Edition*, p. 243) vertical or horizontal straight color lines that alternate

and so on (*Teacher's Edition*, p. 252) to continue to extend the pattern in the same way

Spanish Cognates

These words take advantage of what children and their families may know in their home language in order to accelerate the acquisition of math concepts in English. Other languages may also have cognates with English through shared Latin, Arabic, and Greek roots and affixes.

patterns patrones

art el arte

to repeat repetir

to march marchar

English Learner Support

Preview Big Ideas

When content lessons are taught mainly in English, an excellent strategy to maximize comprehension is to briefly preview the big ideas in the child's primary language so that he or she can better comprehend English instruction.

Esta semana aprendemos a conocer la unidad central de un patrón. Es muy importante porque es la parte del patrón que podemos predecir repetirá.

This week we learn to recognize the core unit of a pattern. This is very important because it is the part of a pattern that we can predict will repeat over and over. The core unit may have two or three or more elements in it.

Teacher Note

Help English learners learn negation by looking at examples and telling why they are not patterns. This may be difficult for English learners of early proficiency. Allow them to point to or draw the reason something is not a repeating pattern. For intermediate and above proficiency level English learners, provide a template such as, "This is not a pattern because it does not have _____. This is not a pattern because it does not _____."

Access Vocabulary

English learners may benefit from clarification of some common phrases and words that proficient English speakers probably know. Occasionally words have more than one meaning or are used in potentially puzzling idiomatic expressions. Before or during the lesson, be sure to clarify the following words and phrases:

figure out (*Teacher's Edition*, p. 262) to find the answer using a small amount of information

step-by-step (*Teacher's Edition*, p. 268) giving attention to each step in the process

stairs (*Teacher's Edition*, p. 265) steps that go up or down in a house

Spanish Cognates

These words take advantage of what children and their families may know in their home language in order to accelerate the acquisition of math concepts in English. Other languages may also have cognates with English through shared Latin, Arabic, and Greek roots and affixes.

unit unidad

elements elementos

objects objetos

horizontal horizontal

vertical vertical

English Learner Support

Preview Big Ideas

When content lessons are taught mainly in English, an excellent strategy to maximize comprehension is to briefly preview the big ideas in the child's primary language so that he or she can better comprehend English instruction.

Esta semana contamos grupos de objetos que forman conjuntos. Vamos a tratar a reconocer el número de grupitos de objetos en un conjunto sin contar cada uno.

This week we will count out groups of objects to make some sets. We are going to try to recognize the number of small groups of objects in a set without having to count each one.

Teacher Note

There are many words in English that have multiple meanings. The counting words are used in this lesson on sets. English learners may hear the words *one/won, two/to/too, four/for, six/sick, eight/ate* and be confused. Recommend to children that when they hear a word that does not make sense to them they should think about the context. In this case they are counting, so they should probably think of the number word. Recommend that if they get stuck and still do not understand, they can always ask what it means.

Access Vocabulary

English learners may benefit from clarification of some common phrases and words that proficient English speakers probably know. Occasionally words have more than one meaning or are used in potentially puzzling idiomatic expressions. Before or during the lesson, be sure to clarify the following words and phrases:

snapshots (*Teacher's Edition*, p. 278) quick, amateur photographs

guess (*Teacher's Edition*, p. 278) to say what you think will happen based on little or no information

mixed-up (*Teacher's Edition*, p. 286) confused

sorting (*Teacher's Edition*, p. 280) separating into categories by attributes such as color, size, shape, and so on

Spanish Cognates

These words take advantage of what children and their families may know in their home language in order to accelerate the acquisition of math concepts in English. Other languages may also have cognates with English through shared Latin, Arabic, and Greek roots and affixes.

groups of numbers grupos de números

objects objetos

to count contar

numbers números

counters contadores

English Learner Support

Preview Big Ideas

When content lessons are taught mainly in English, an excellent strategy to maximize comprehension is to briefly preview the big ideas in the child's primary language so that he or she can better comprehend English instruction.

<p><i>Esta semana vamos a seguir contando y comparando números. Necesitas llevar la cuenta y tienes que dejar de contar cuando llegas al número indicado.</i></p>	<p>This week we are going to continue practicing counting and comparing numbers. You need to keep track of the number you are counting and to stop when you arrive at that counting number.</p>
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Teacher Note

As students count and compare groups of objects they will see that some groups have more and some have fewer. English learners may need help with the comparative and superlative forms of adjectives. Demonstrate the following:

POSITIVE	COMPARATIVE	SUPERLATIVE
Big Old Small	Bigger Older Smaller	Biggest Oldest Smallest

Access Vocabulary

English learners may benefit from clarification of some common phrases and words that proficient English speakers probably know. Occasionally words have more than one meaning or are used in potentially puzzling idiomatic expressions. Before or during the lesson, be sure to clarify the following words and phrases:

count backward (*Teacher's Edition*, p. 295) count in sequence from a number to a lesser number

keep track (*Teacher's Edition*, p. 295) make a record of the number of objects or events

mistake (*Teacher's Edition*, p. 296) error; an incorrect answer

stack (*Teacher's Edition*, p. 298) to place blocks or objects on top of one another to make a high tower

Spanish Cognates

These words take advantage of what children and their families may know in their home language in order to accelerate the acquisition of math concepts in English. Other languages may also have cognates with English through shared Latin, Arabic, and Greek roots and affixes.

counting contando

comparing comparando

ordering numbers ordenando números

collection colección

correct correcto

English Learner Support

Preview Big Ideas

When content lessons are taught mainly in English, an excellent strategy to maximize comprehension is to briefly preview the big ideas in the child's primary language so that he or she can better comprehend English instruction.

Esta semana vamos a comparar objetos para ver cuál es más largo, cuál pesa más y cuál es más alto.

This week we are going to compare objects to see which one is longer, which is heavier or which one is taller.

Teacher Note

In English when we want to ask a person about their measurements we need to be aware that not all adults want to share information about how much they weigh. In English, when we want to compare height, we ask a person “how tall are you,” not “how high are you?”

Access Vocabulary

English learners may benefit from clarification of some common phrases and words that proficient English speakers probably know. Occasionally words have more than one meaning or are used in potentially puzzling idiomatic expressions. Before or during the lesson, be sure to clarify the following words and phrases:

predict (*Teacher's Edition*, p. 307) to say what you think will happen based on some information and experience

line up (*Teacher's Edition*, p. 307) get in line behind others

hands in their laps (*Teacher's Edition*, p. 312) When you sit down, your lap is the flat surface created by your thighs.

flip the card (*Teacher's Edition*, p. 311) quickly turn over the card

Spanish Cognates

These words take advantage of what children and their families may know in their home language in order to accelerate the acquisition of math concepts in English. Other languages may also have cognates with English through shared Latin, Arabic, and Greek roots and affixes.

distance distancia

comparison comparación

capacity capacidad

English Learner Support

Preview Big Ideas

When content lessons are taught mainly in English, an excellent strategy to maximize comprehension is to briefly preview the big ideas in the child's primary language so that he or she can better comprehend English instruction.

Esta semana, vamos a aprender acerca del calendario y del horario de rutinas diarias. Haremos un cuadro de dibujos de la secuencia de eventos diarios. También, vamos a practicar medir la altura a ver cuán alto o bajo somos.

This week we are going to learn about the calendar and following a schedule of routines every day. We will make a picture chart of the sequence of events each day. We will also practice measuring height to see how tall or how short we are.

Teacher Note

Provide lots of authentic counting and comparing tasks with real objects.

Access Vocabulary

English learners may benefit from clarification of some common phrases and words that proficient English speakers probably know. Occasionally words have more than one meaning or are used in potentially puzzling idiomatic expressions. Before or during the lesson, be sure to clarify the following words and phrases:

end-to-end (*Teacher's Edition*, p. 321) line up objects so that they touch each other on their ends

missing step (*Teacher's Edition*, p. 326) a step not where it should be

How did you figure out? (*Teacher's Edition*, p. 327) How did you find the answer or solve the problem?

Spanish Cognates

These words take advantage of what children and their families may know in their home language in order to accelerate the acquisition of math concepts in English. Other languages may also have cognates with English through shared Latin, Arabic, and Greek roots and affixes.

routine rutina

calendar calendario

sequence of events secuencia de eventos

to measure medir

cube cubo

English Learner Support

Preview Big Ideas

When content lessons are taught mainly in English, an excellent strategy to maximize comprehension is to briefly preview the big ideas in the child's primary language so that he or she can better comprehend English instruction.

Esta semana vamos a trabajar con medidas. El medir nos ayuda a comparar objetos. Podemos determinar cuál es más grande o pequeño, cuál es más pesado o ligero. ¿En tu familia, quien es más alto? ¿Cómo sabes?

This week we are going to work with measuring. Measuring helps us to compare objects. We can find out which is bigger or smaller, which things are heavier or lighter. In your family, who is taller? How do you know?

Teacher Note

There are some special measurement words we use to describe how long, how heavy, how tall, and how wide something is. The words length and width end with the /th/ sound, which does not exist in all languages so some English learners may need help practicing the pronunciation. Also, let children know that when we want to know someone's height, we ask how tall they are not how high they are.

Access Vocabulary

English learners may benefit from clarification of some common phrases and words that proficient English speakers probably know. Occasionally words have more than one meaning or are used in potentially puzzling idiomatic expressions. Before or during the lesson, be sure to clarify the following words and phrases:

match (*Teacher's Edition*, p. 343) to pair things that go together or are the same
count them to check (*Teacher's Edition*, p. 345) count to be sure that the answer you got is correct; to check your answer
flips a card (*Teacher's Edition*, p. 345) turns over a playing card to see what it is
break a tie (*Teacher's Edition*, p. 343) to determine a clear winner of a competition when the score is the same for both teams or tied

Spanish Cognates

These words take advantage of what children and their families may know in their home language in order to accelerate the acquisition of math concepts in English. Other languages may also have cognates with English through shared Latin, Arabic, and Greek roots and affixes.

to compare comparar
to count contar
Attributes atributos

English Learner Support

Preview Big Ideas

When content lessons are taught mainly in English, an excellent strategy to maximize comprehension is to briefly preview the big ideas in the child's primary language so that he or she can better comprehend English instruction.

Esta semana, vamos a aprender a comparar números y ponerlos en orden. Nos divertimos solucionando rompecabezas y solucionando problemas. Mientras que lo hacemos, piensa en cómo sabes la respuesta.

This week we are going to learn about comparing numbers and putting them in order. We are also going to have fun figuring out puzzles and solving problems. While we do this, think about how you know the answer.

Teacher Note

In the game Line Up—Who's First we practice ordinal numbers. After *first*, *second*, and *third*, all the ordinal numbers end with /th/. This sound may be difficult for children who are second language learners where this sound does not exist or it exists but not in the final position. Practice articulating carefully for English learners to hear and give them a little practice to say each word.

Access Vocabulary

English learners may benefit from clarification of some common phrases and words that proficient English speakers probably know. Occasionally words have more than one meaning or are used in potentially puzzling idiomatic expressions. Before or during the lesson, be sure to clarify the following words and phrases:

guess (*Teacher's Edition*, p. 356) to say what you think the answer is without a lot of information to base it on

foolers (*Teacher's Edition*, p. 362) shapes that look just like the shape we are looking for but are a bit different

Blastoff! (*Teacher's Edition*, p. 364) When a rocket ship launches we count down to say "blastoff" when the rocket lifts off the ground.

Spanish Cognates

These words take advantage of what children and their families may know in their home language in order to accelerate the acquisition of math concepts in English. Other languages may also have cognates with English through shared Latin, Arabic, and Greek roots and affixes.

designs diseños

objects objetos

numbers números

numerical order orden numérico

Preview Big Ideas

When content lessons are taught mainly in English, an excellent strategy to maximize comprehension is to briefly preview the big ideas in the child's primary language so that he or she can better comprehend English instruction.

Esta semana vamos a practicar combinar números usando tus dedos.

This week we are going to practice combining numbers using your fingers.

Teacher Note

Teach English learners the name for each finger—thumb, pointer, middle finger, ring finger, and pinky.

Access Vocabulary

English learners may benefit from clarification of some common phrases and words that proficient English speakers probably know. Occasionally words have more than one meaning or are used in potentially puzzling idiomatic expressions. Before or during the lesson, be sure to clarify the following words and phrases:

Put your hands in your lap. (*Teacher's Edition*, p. 374) Put your hands on your thighs when you sit.

play the role of customer (*Teacher's Edition*, p. 377) pretend to be a customer; someone who is buying things

Salesperson (*Teacher's Edition*, p. 377) A clerk in a store who answers questions about the merchandise and works the cash register.

Spanish Cognates

These words take advantage of what children and their families may know in their home language in order to accelerate the acquisition of math concepts in English. Other languages may also have cognates with English through shared Latin, Arabic, and Greek roots and affixes.

dinosaurs dinosaurios

to combine combinar

addition adición

group of objects grupo de objetos

figure out figurar

one dollar un dólar

English Learner Support

Preview Big Ideas

When content lessons are taught mainly in English, an excellent strategy to maximize comprehension is to briefly preview the big ideas in the child's primary language so that he or she can better comprehend English instruction.

Esta semana vamos a combinar grupos de objetos para determinar cuántos hay. También, trabajamos con conjuntos de objetos donde quitamos unos y contamos cuántos quedan.

This week we are going to combine groups of objects and add them all together. We will also work with sets of objects to take away some and count how many are left.

Teacher Note

Playing board games is an excellent way to practice skills in an authentic setting that is fun and less tedious than straight drills. *Real Math* provides many games for children as part of the program. Pair English learners with more proficient English speakers to give them opportunities to rehearse counting and other English phrases and structures, such as asking questions.

Access Vocabulary

English learners may benefit from clarification of some common phrases and words that proficient English speakers probably know. Occasionally words have more than one meaning or are used in potentially puzzling idiomatic expressions. Before or during the lesson, be sure to clarify the following words and phrases:

right before/right after (*Teacher's Edition*, p. 392) In this context, the word right means "immediately beside"; also means "correct; opposite direction of left"

secret number (*Teacher's Edition*, p. 394) a number that only one person knows and others are trying to guess

guess (*Teacher's Edition*, p. 395) to say what you think the answer is without a lot of information to base it on

Spanish Cognates

These words take advantage of what children and their families may know in their home language in order to accelerate the acquisition of math concepts in English. Other languages may also have cognates with English through shared Latin, Arabic, and Greek roots and affixes.

sum suma

secret number número secreto

pairs pares

in order en orden

counters contadores

English Learner Support

Preview Big Ideas

When content lessons are taught mainly in English, an excellent strategy to maximize comprehension is to briefly preview the big ideas in the child's primary language so that he or she can better comprehend English instruction.

Esta semana hablamos de posición numérica como primero, segundo, tercero, y así sucesivamente hasta décimo. Por ejemplo, cuando se forman, todos quieren ser primero. También practicamos añadir a un conjunto. Contamos los objetos en un conjunto, luego agregamos uno más para ver cuántos tenemos. Contar en orden es una destreza importante.

This week we will practice using numbers to talk about position, such as *first, second, third*, and so on all the way to *tenth*. For example, when we line up, everyone likes to be first. We will also practice adding to a set. We will count the set of objects, and then add one more to see how many we have. Counting in order is a very important skill.

Teacher Note

One of the challenging English language elements for young children is the correct use of prepositions. In this lesson, as we work with ordinal numbers, we will have children actively line up to show what position they are in line. This is an excellent opportunity to also practice position words such as *between, in front of, in back of, next to*, and so on.

Access Vocabulary

English learners may benefit from clarification of some common phrases and words that proficient English speakers probably know. Occasionally words have more than one meaning or are used in potentially puzzling idiomatic expressions. Before or during the lesson, be sure to clarify the following words and phrases:

pretend to be dinosaurs (*Teacher's Edition*, p. 410) Use your imagination, and act like a huge dinosaur.

make it right (*Teacher's Edition*, p. 412) to correct an error; to fix the answer so it is correct

record their guess (*Teacher's Edition*, p. 403) to make a record; to make tally marks or keep track of a guess

how many he has left (*Teacher's Edition*, p. 402) how many remain; what number of objects are still in place

Spanish Cognates

These words take advantage of what children and their families may know in their home language in order to accelerate the acquisition of math concepts in English. Other languages may also have cognates with English through shared Latin, Arabic, and Greek roots and affixes.

zero cero

dinosaur dinosaurio

ordinal numbers números ordinales

English Learner Support

Preview Big Ideas

When content lessons are taught mainly in English, an excellent strategy to maximize comprehension is to briefly preview the big ideas in the child's primary language so that he or she can better comprehend English instruction.

Trabajamos esta semana con las formas. Vamos a jugar el juego de I spy (creo que veo) para practicar cómo describir cada forma.

This week we are working with shapes. We will play the game of I Spy to practice how to describe each shape.

Teacher Note

Graphic organizers are an excellent way for English learners to demonstrate what they know by using short phrases and words. Draw a word web with the word square (or other shape) in the middle. Brainstorm and record words that describe this shape. When completed, ask several students to illustrate each descriptive word to add comprehensibility to the chart.

Access Vocabulary

English learners may benefit from clarification of some common phrases and words that proficient English speakers probably know. Occasionally words have more than one meaning or are used in potentially puzzling idiomatic expressions. Before or during the lesson, be sure to clarify the following words and phrases:

opposite sides (*Teacher's Edition*, p. 419) sides in a shape that are across from one another; sides that don't meet

corners (*Teacher's Edition*, p. 423) where two sides of a shape meet

length (*Teacher's Edition*, p. 417) the measure of how long something is

Spanish Cognates

These words take advantage of what children and their families may know in their home language in order to accelerate the acquisition of math concepts in English. Other languages may also have cognates with English through shared Latin, Arabic, and Greek roots and affixes.

figures figuras

designs diseños

to trace trazar

attributes atributos

angles ángulos

English Learner Support

Preview Big Ideas

When content lessons are taught mainly in English, an excellent strategy to maximize comprehension is to briefly preview the big ideas in the child's primary language so that he or she can better comprehend English instruction.

Esta semana vamos a combinar figuras para hacer retratos. También aprendemos más de los lados y ángulos de diferentes formas.

This week we are going to continue to combine shapes to make pictures. We will also learn more about the sides and angles of different shapes.

Teacher Note

Sometimes in English we make up funny words that help us describe an idea. In this lesson we are going to challenge everyone to recognize the shapes. We try to “fool” the players by drawing a shape that is very similar to the correct shape so we call this a “fooler.” Can you think of any other made up words that we use?

Access Vocabulary

English learners may benefit from clarification of some common phrases and words that proficient English speakers probably know. Occasionally words have more than one meaning or are used in potentially puzzling idiomatic expressions. Before or during the lesson, be sure to clarify the following words and phrases:

mix up (*Teacher's Edition*, p. 436) combine objects out of order; to be confused

trial and error (*Teacher's Edition*, p. 438) to try one approach and if it does not work, try another until you find the answer

mistake (*Teacher's Edition*, p. 440) error; incorrect answer

Spanish Cognates

These words take advantage of what children and their families may know in their home language in order to accelerate the acquisition of math concepts in English. Other languages may also have cognates with English through shared Latin, Arabic, and Greek roots and affixes.

composition composición

figure figura

attributes atributos

category categoría

angles ángulos

correct correcto

orientation orientación

English Learner Support

Preview Big Ideas

When content lessons are taught mainly in English, an excellent strategy to maximize comprehension is to briefly preview the big ideas in the child's primary language so that he or she can better comprehend English instruction.

Esta semana vamos a practicar sumar objetos para aumentar conjuntos de objetos o hacerlos más grandes. También vamos a practicar restar, quitando algunos objetos de unos conjuntos y contando los que quedan.

This week we are going to practice adding together objects to make bigger sets of objects. We are also going to practice subtraction by taking away some objects from a set and counting how many remain.

Teacher Note

Using food objects such as fish crackers or pretend pizza is fun and familiar to students. An excellent strategy for building comprehension for English learners is the use of realia or real objects to make connections to new skills and vocabulary rather than just talking about them.

Access Vocabulary

English learners may benefit from clarification of some common phrases and words that proficient English speakers probably know. Occasionally words have more than one meaning or are used in potentially puzzling idiomatic expressions. Before or during the lesson, be sure to clarify the following words and phrases:

to join together (*Teacher's Edition*, p. 449) to add together; to combine two sets or numbers together for a new total

take away (*Teacher's Edition*, p. 450) to subtract; to delete; to remove objects from a set

Spanish Cognates

These words take advantage of what children and their families may know in their home language in order to accelerate the acquisition of math concepts in English. Other languages may also have cognates with English through shared Latin, Arabic, and Greek roots and affixes.

to add añadir
total total
objects objetos
zero cero
dinosaurs dinosaurios
absent ausente

English Learner Support

Preview Big Ideas

When content lessons are taught mainly in English, an excellent strategy to maximize comprehension is to briefly preview the big ideas in the child's primary language so that he or she can better comprehend English instruction.

Esta semana vamos a aprender más de combinar números. Recuerda que la pregunta, "¿How many (cuántos)? pide un número preciso de respuesta. La pregunta "How much?" (cuánto o cuánta) pide una descripción general como muchos, pocos, y así sucesivamente.

This week we are going to learn more about combining numbers. Remember that when we ask "How many?" we are looking for a number answer and when we ask "How much?" we are asking for a description, such as *many, few, lots, and a bunch.*

Teacher Note

As children use their fingers to count-up the total of two sets, make sure that English learners know the names we give each finger in English—the thumb, index finger, middle finger, ring finger and pinky. Ask whether each finger has a special name in their home language.

Access Vocabulary

English learners may benefit from clarification of some common phrases and words that proficient English speakers probably know. Occasionally words have more than one meaning or are used in potentially puzzling idiomatic expressions. Before or during the lesson, be sure to clarify the following words and phrases:

deal the cards evenly (*Teacher's Edition*, p. 471) give each player the same number of cards

Place cards facedown (*Teacher's Edition*, p. 471) Place cards so that the number information is not showing but facing down toward the table or floor.

secret number (*Teacher's Edition*, p. 476) A number that is hidden; a number we don't yet know.

Spanish Cognates

These words take advantage of what children and their families may know in their home language in order to accelerate the acquisition of math concepts in English. Other languages may also have cognates with English through shared Latin, Arabic, and Greek roots and affixes.

groups grupos

to compose numbers componer números

repeat repite

sum suma

problems problemas

Spanish Cognates

These words take advantage of what students and their families may know in their home language in order to accelerate the acquisition of math concepts in English. Other languages may also have cognates with English through shared Latin, Arabic and Greek word roots and affixes. Spanish speakers should look for English words with these endings. The counterparts in Spanish generally are very close in spelling and meaning.

A

activity = actividad

addition = adición

algorithm = algoritmo

analyze = analizar

announce = anuncia

appropriate = apropiado

attribute = atributo

B

balance (scale) = balanza

baseball = béisbol

basic = básico

bills = billetes

C

calendar = calendario

capacity = capacidad

cent = centavo

centimeter = centímetro

chapter = capítulo

circle = círculo

classify = clasificar

collection = colección

color = color

column = columna

combination = combinación

comparability = comparabilidad

compare = comparar

complete = completar

cone = cono

confirm = confirmar

copy = copiar

correct number = número correcto

correspondence = correspondencia

cost = costo

count = cuenta

cube = cubo

cylinder = cilindro

D

data = datos

decide = decide

decimal = decimal

demonstrate = demostrar
denomination = denominación
destination = destinación
determine = determinar
different = diferente
digits = dígitos
directions = direcciones
discussion = discusión
divide = divide
dollar = dólar
double = doble

E

eliminate = eliminar
equal = igual
equality = igualdad
estimate = estimar
exercise = ejercicio
expanded = expandida
experiment = experimento
explain = explica
explore = explorar
explorer = explorador

F

false = falso
favorite = favorito
figure = figura
form = forma

fraction = fracción
fruit = fruta
function = función

G

geometry = geometría
grams = gramos
graph = gráfico

H

horizontal = horizontal
hour = hora

I

ideas = ideas
identify = identificar
imagine = imagina
independent = independiente
individual = individuo
information = información
interpret = interpreter
inverse = inverso
irregular = irregular

J

K

L

lesson = lección
line = línea

liquid = líquido

liters = litros

M

machine = máquina

manipulatives = manipulativos

memorize = memoriza

minuend = minuendo

minus = menos

minutes = minutos

move = mover

movements = movimientos

multiples = múltiplos

multiplication = multiplicación

N

notation = notación

not necessary = no necesario

number = número

O

objects = objetos

operation = operación

opposite = opuesto

order = orden

ordinal = ordinal

P

pair = par

paper = papel

parentheses = paréntesis

parts = partes

pattern = patrón

pentagon = pentágono

pizza = pizza

planted = platada

points = puntos

polygon = polígono

portion = porción

practice = práctica

predictions = predicción

prerequisite = requisito

priority = prioridad

probability experiment =
experimento de probabilidad

problem = problema

Q

quadrilateral = cuadrilátero

quantity = cantidad

R

range = rango

rational basis = base racional

record = recordar

rectangle = rectángulo

regular = regular

relation = relación

repeat = repite

represent = representar

report = reportar

rest = resto

results = resulta

rhombus = rombo

round (of a game) = ronda

route = ruta

S

scale = escala

separated = separado

sequence = secuencia

sign = signo

solution = solución

sphere = esfera

standard = estándar

statue = estatua

strategy = estrategia

subtrahend = sustraendo

sum = suma

symmetrical = simétrico

symmetry = simetría

T

temperature = temperatura

thermometer = termómetro

total = total

trace = trace

train = tren

trapezoid = trapecio

triangle = triángulo

U

unison = unison

units = unidades

to use = usar

V

value = valor

vertical = vertical

vice versa = viceversa

vocabulary = vocabulario

volume = volúmen

volunteer = voluntario

W

X

Y

Z

zero = cero

Practice

Overview

This section of the **Teacher's Resource Guide** includes blackline masters that are used repeatedly in a variety of classroom settings throughout the school year. Ranging from dollar bills to detailed backgrounds, this section provides many of the pages integral to the activities in **Building Blocks**. When they are used in an activity, you will find these pages referenced in the Program Resources column of each Weekly Planner from the **Teacher's Edition**. Most of these blackline masters have little text on them, as their purposes may vary; any pertinent instructions are included at point-of-use in the **Teacher's Edition**. Following is a brief Table of Contents only for the Practice section. The images in the Practice section are also available online in the **Interactive Whiteboard Activities**.

The Shape Flip Book, which follows the Practice section, starts on page 196. It is meant to be a spiral book so pages can be flipped, and its purpose is to have children mix up the separate panels, trying to find shape matches. Specific directions for assembly are listed on page 196.

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Counting Cards

0

1

●	

2

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3

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4

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5

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●	

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Counting Cards

6

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7

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●	●
●	●

8

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●	
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●	●
●	●

9

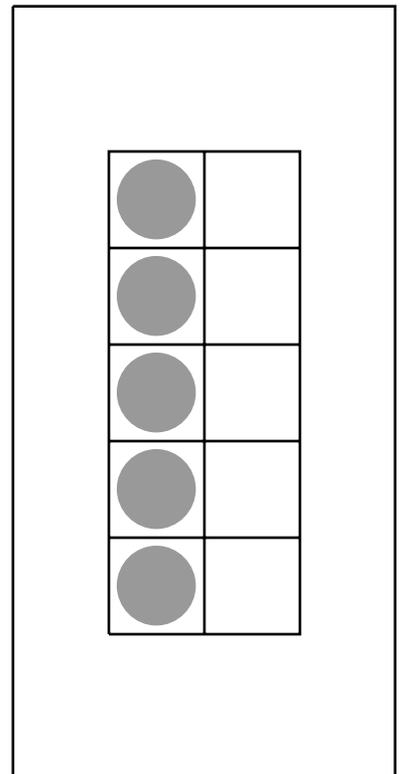
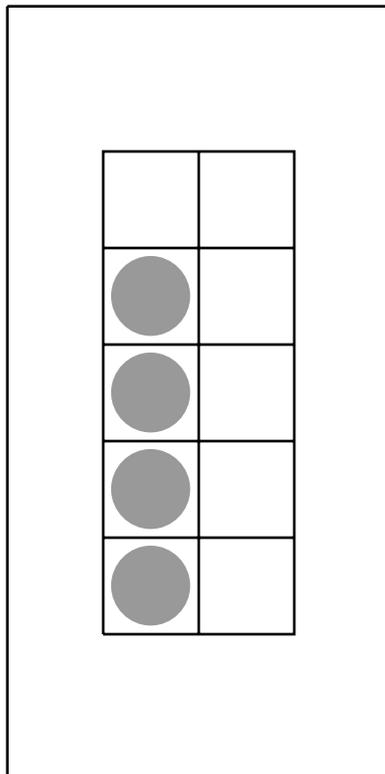
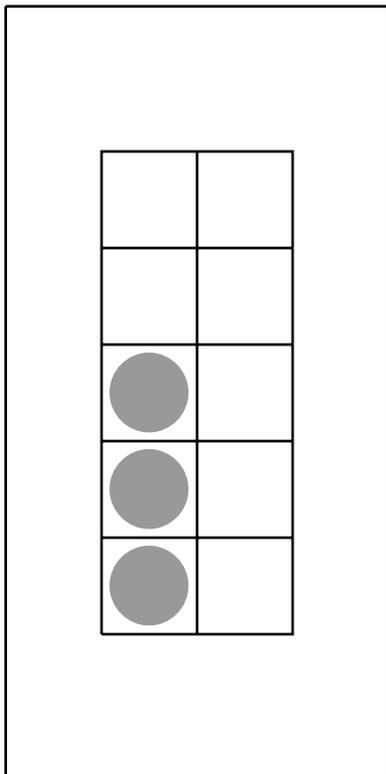
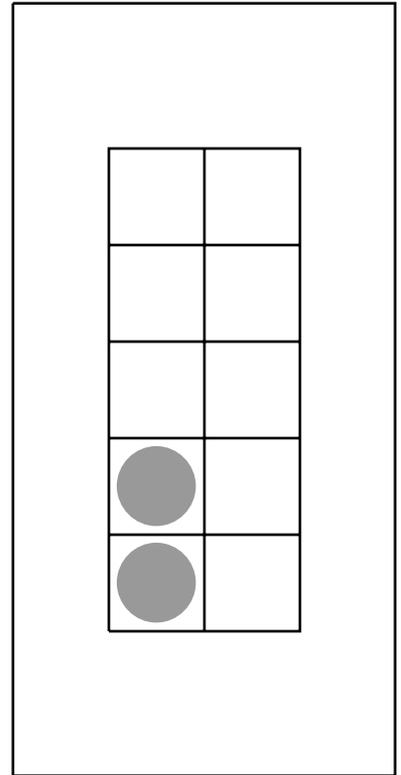
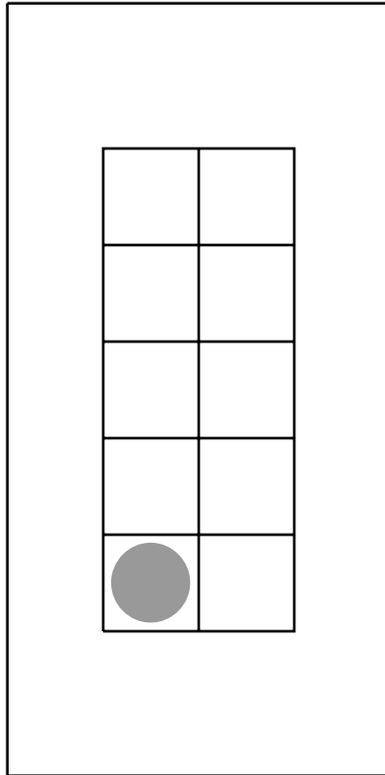
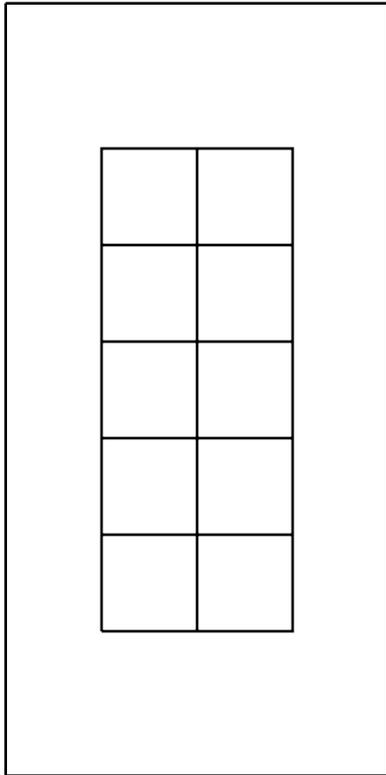
●	
●	●
●	●
●	●
●	●

10

●	●
●	●
●	●
●	●
●	●

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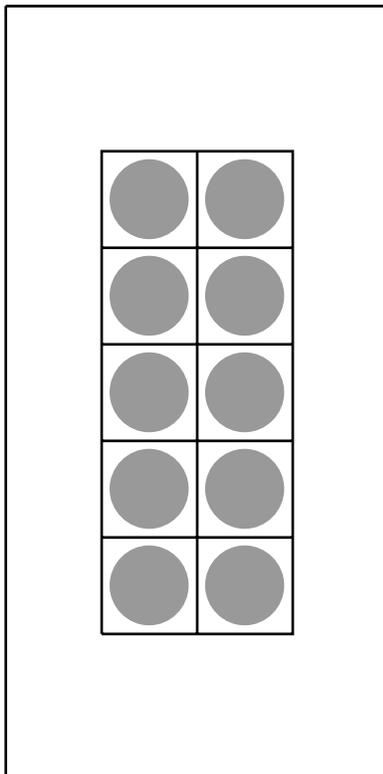
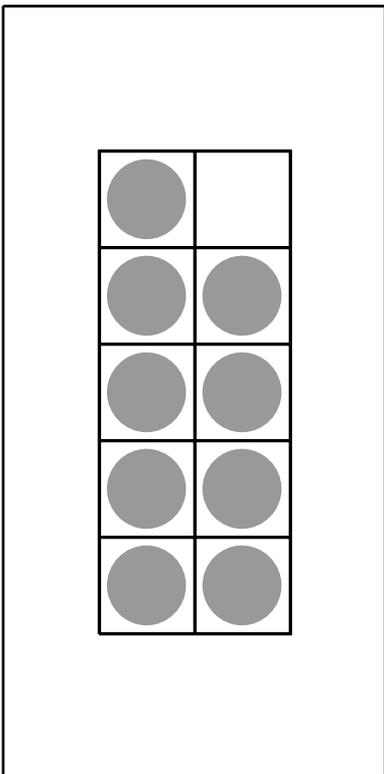
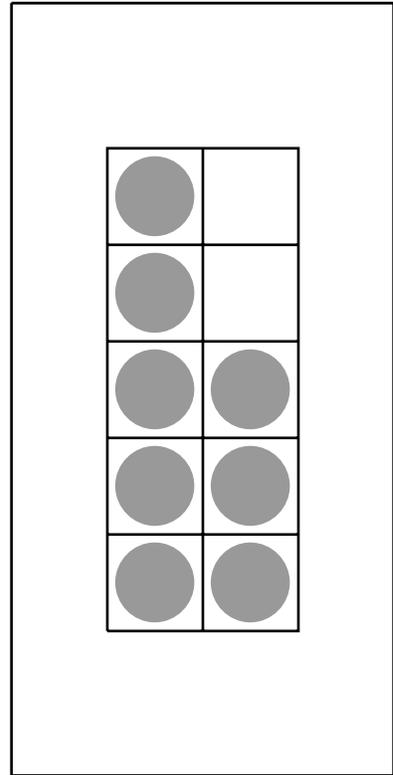
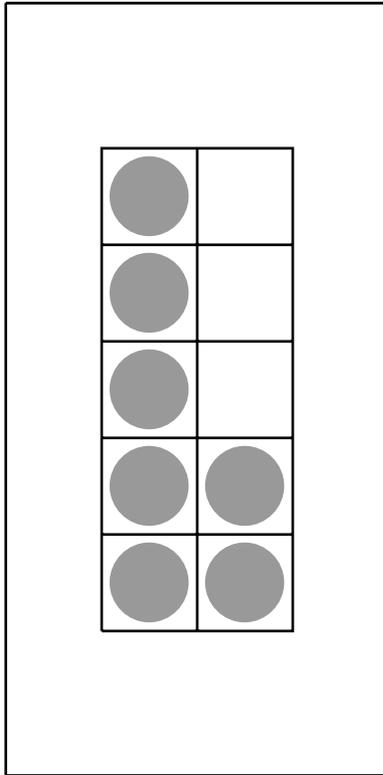
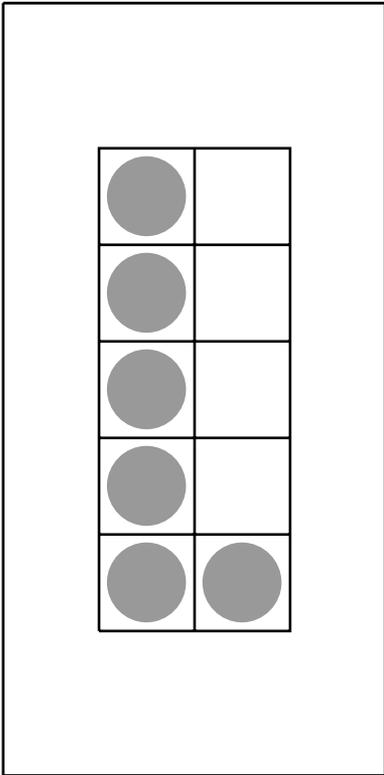
Dot Cards



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Dot Cards



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Numeral Cards

0

1

2

3

4

5



Numeral Cards

6

7

8

9

10

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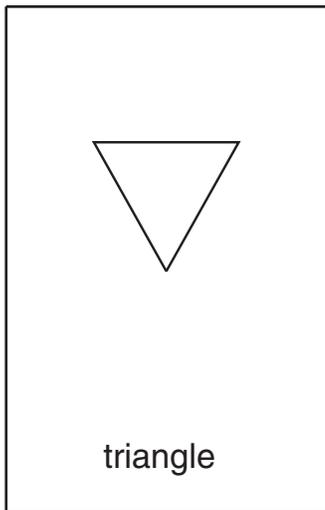
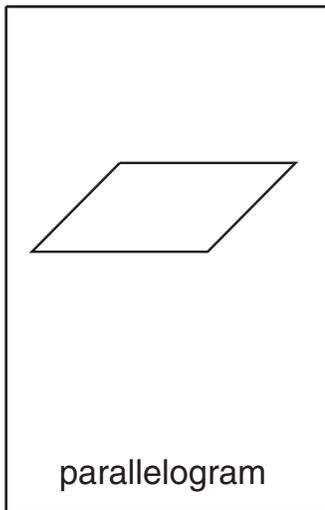
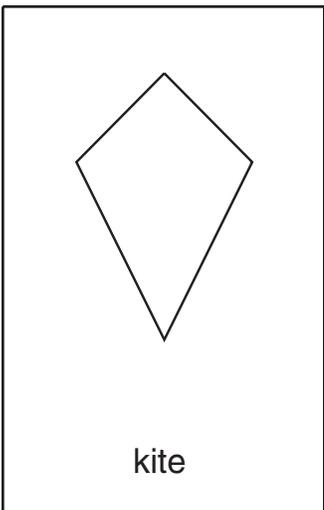
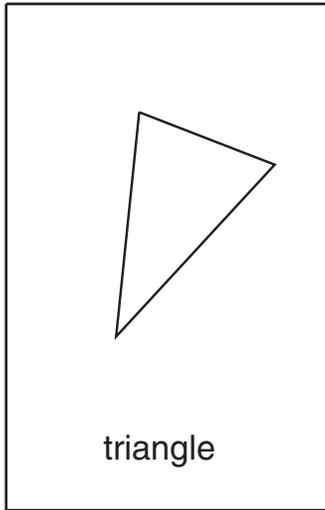
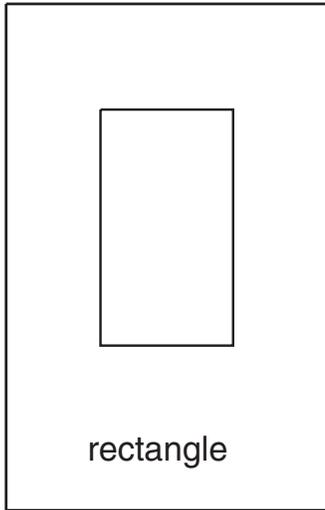
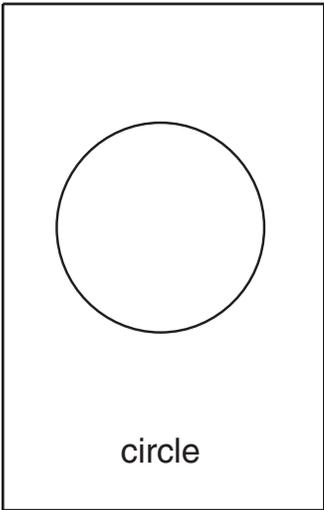
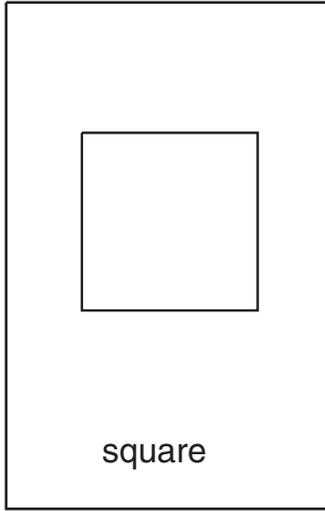
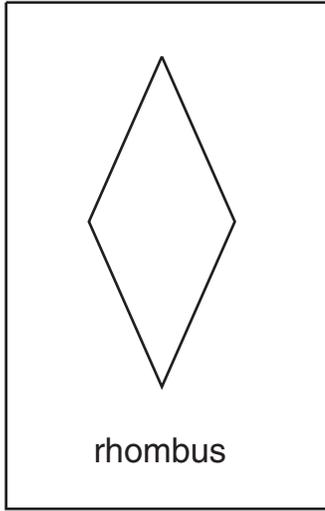
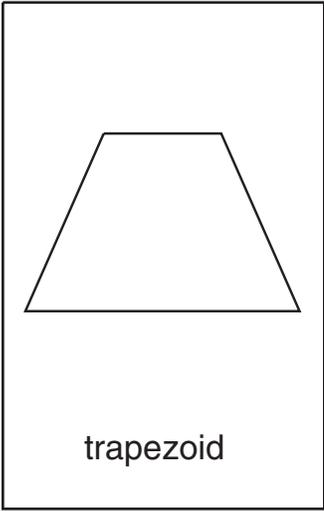
Computer Sign-In

Icon	Child's Name	Notes	Icon	Child's Name	Notes

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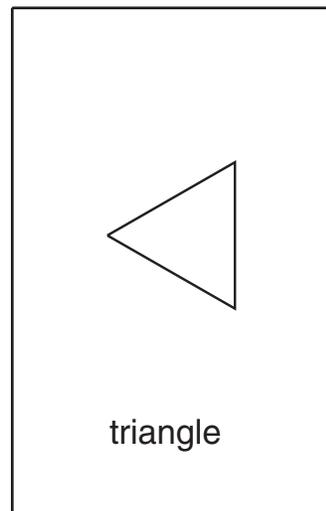
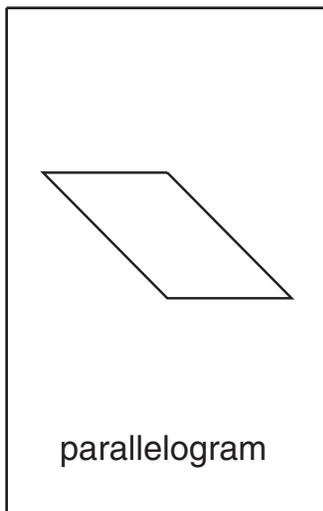
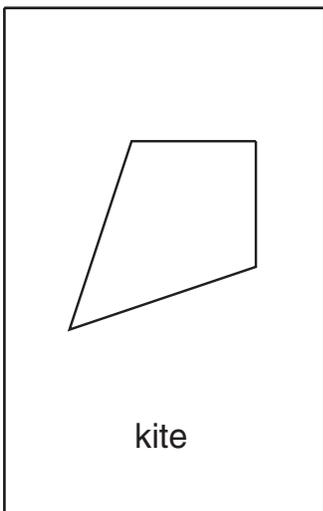
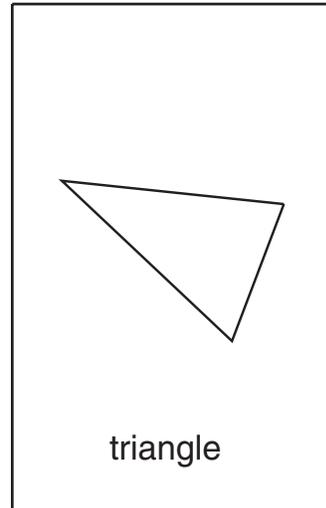
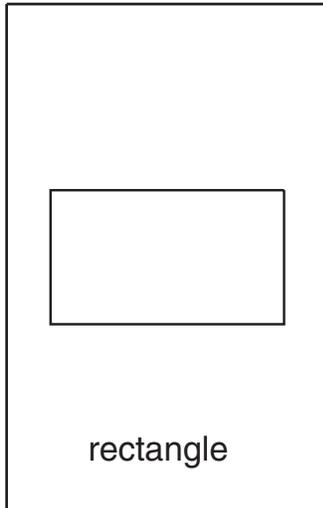
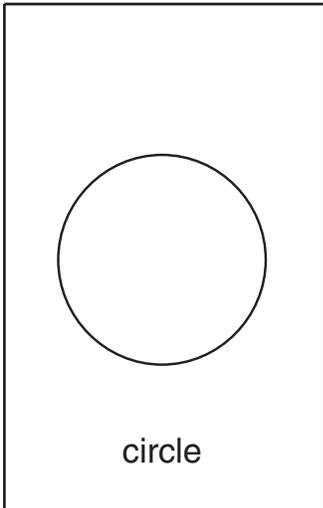
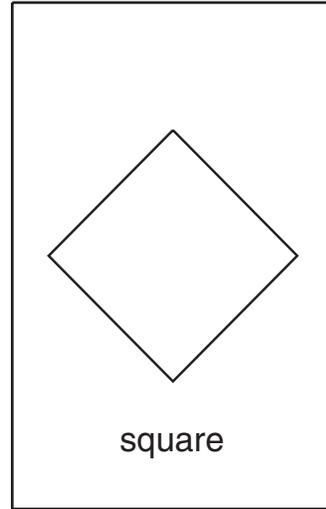
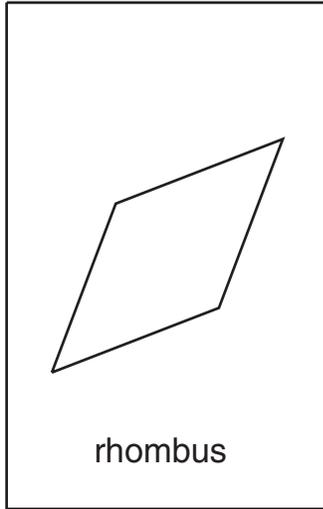
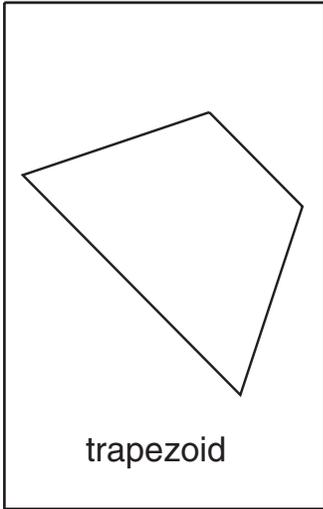
Memory Geometry: Set A



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Memory Geometry: Set B



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Memory Geometry: Set C1



octagon



square



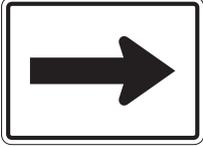
pentagon



triangle



triangle



rectangle



square



rectangle

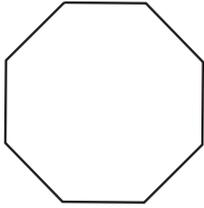


circle

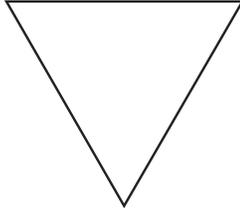
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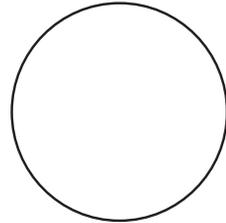
Memory Geometry: Set C2



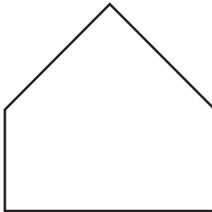
octagon



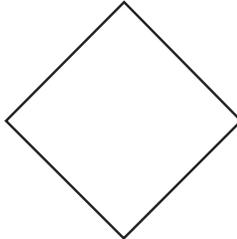
triangle



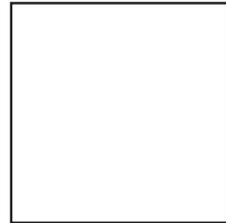
circle



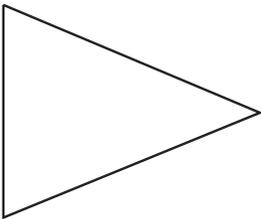
pentagon



square



square



triangle



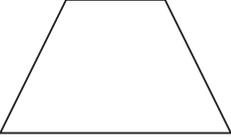
rectangle



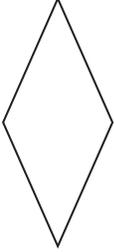
rectangle



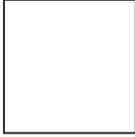
Memory Geometry: Set D



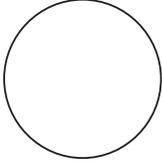
trapezoid



rhombus



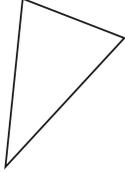
square



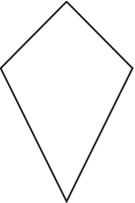
circle



rectangle



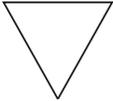
triangle



kite



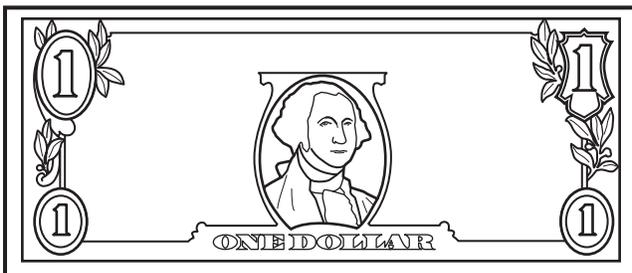
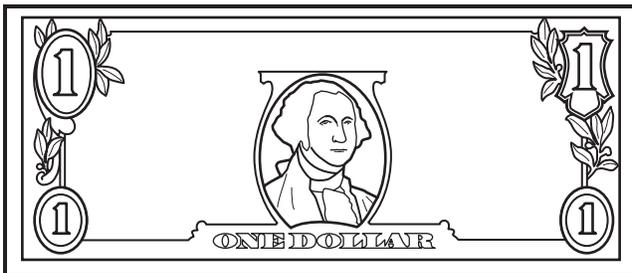
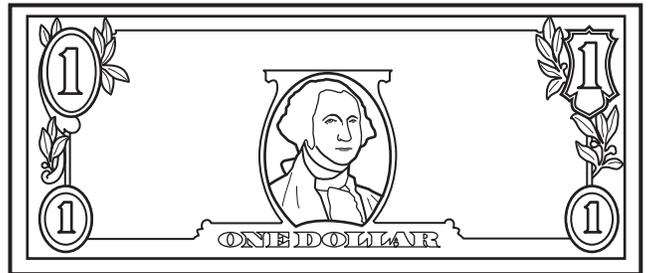
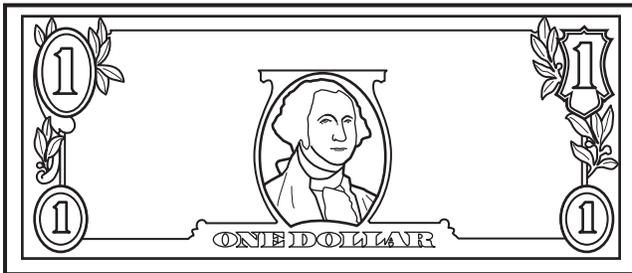
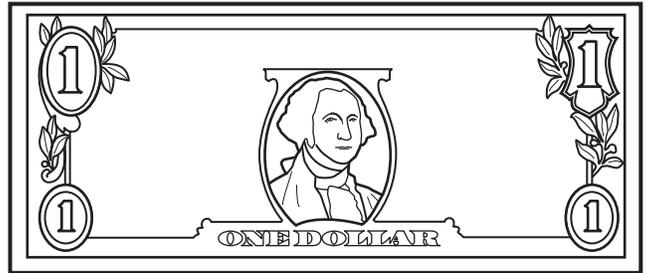
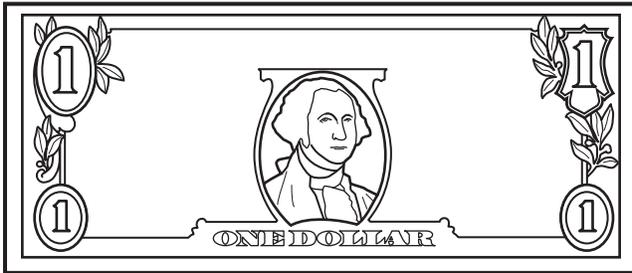
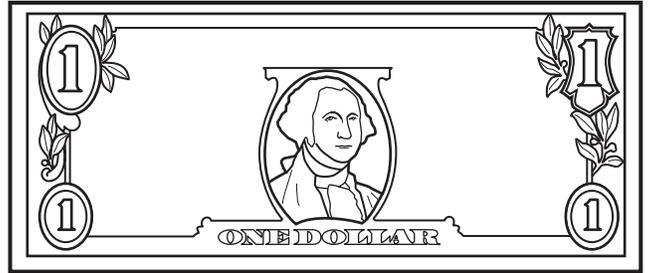
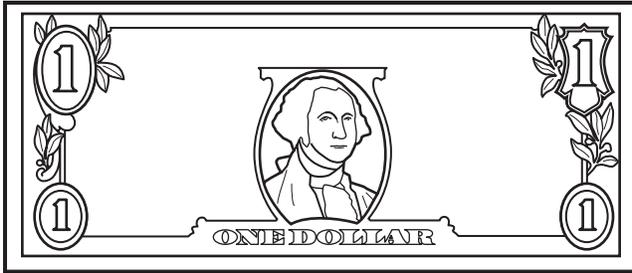
parallelogram



triangle

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Money

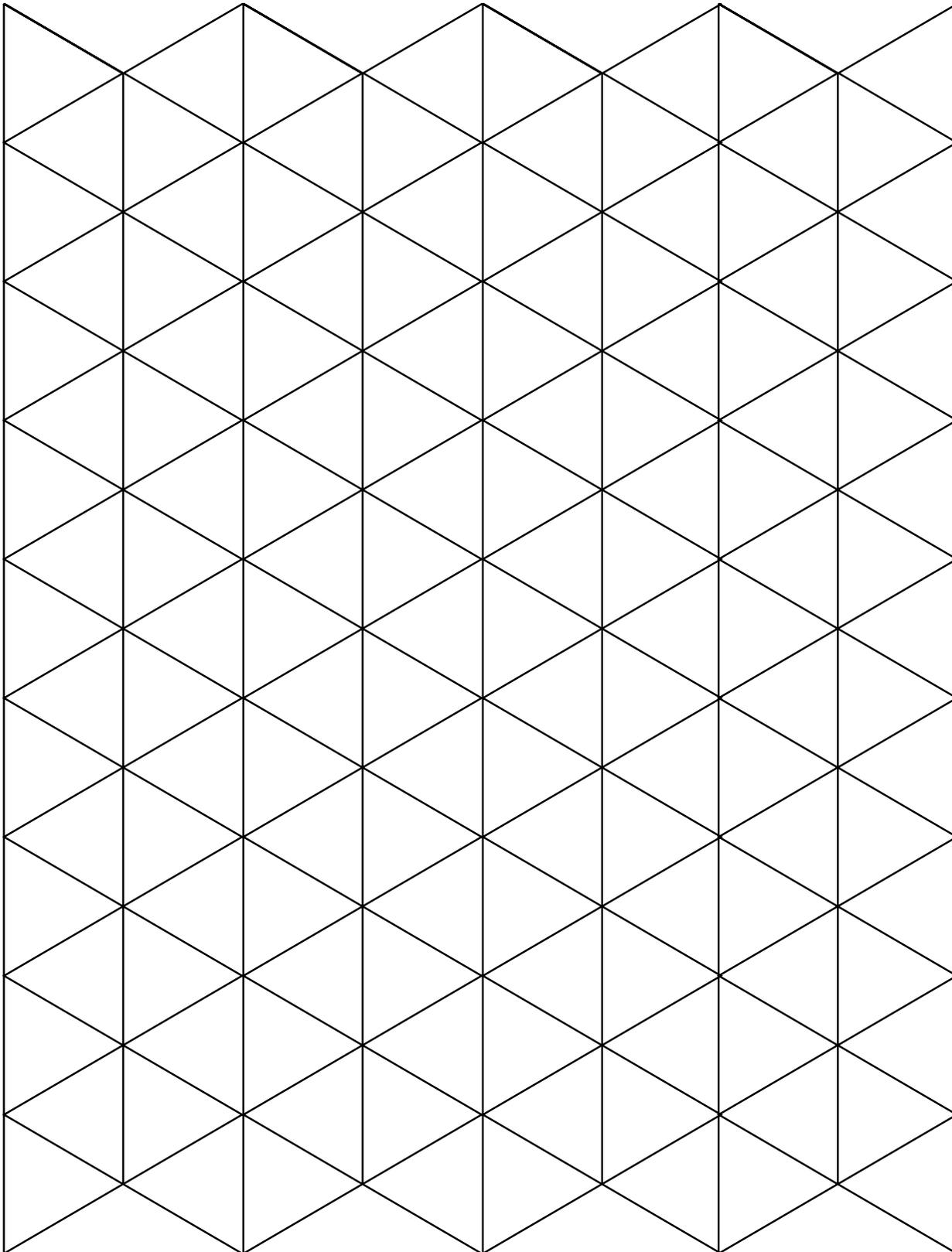


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Pattern Block Cutouts

Directions: Duplicate these triangles on green paper and cut apart.

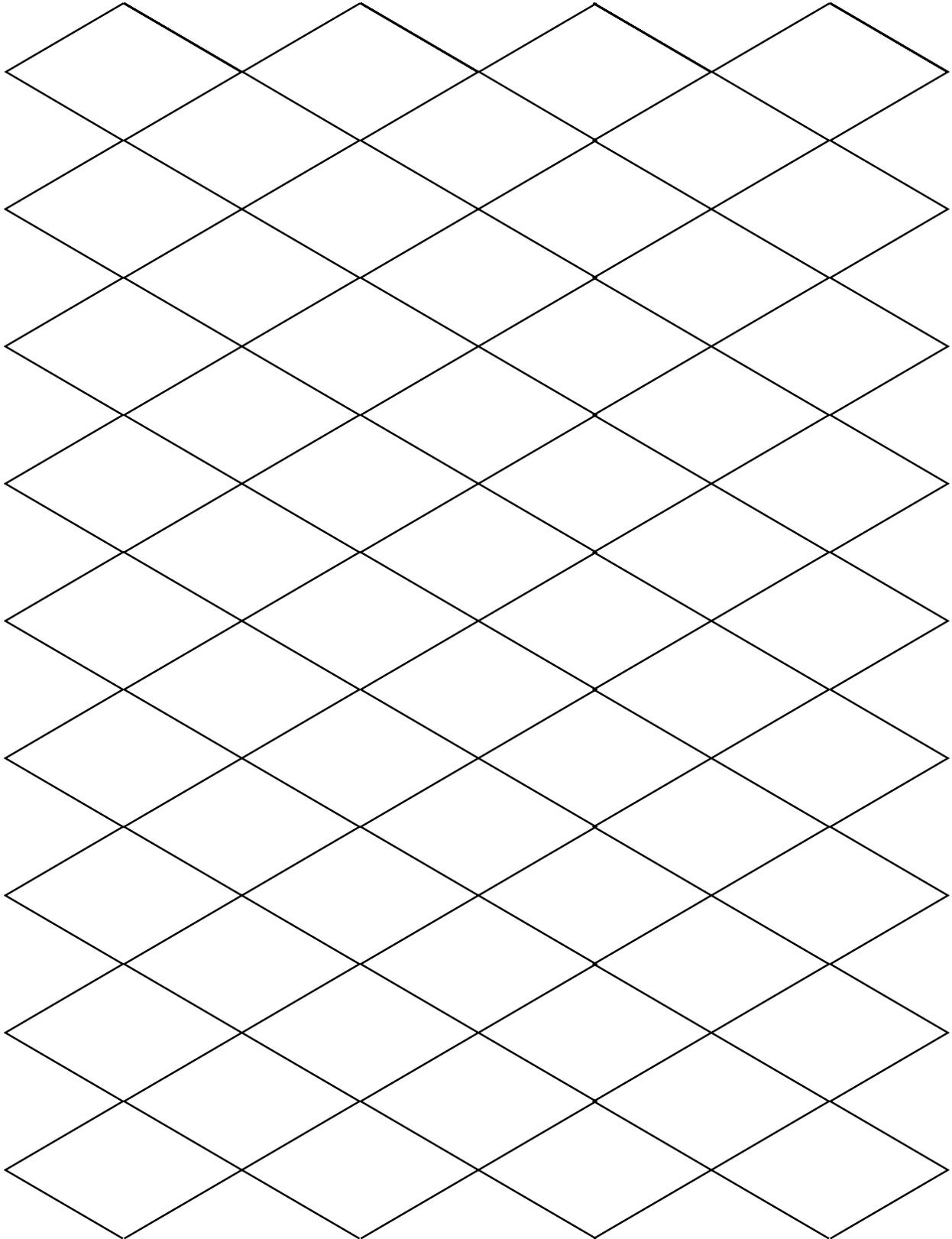


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Pattern Block Cutouts

Directions: Duplicate these rhombuses on blue paper and cut apart.

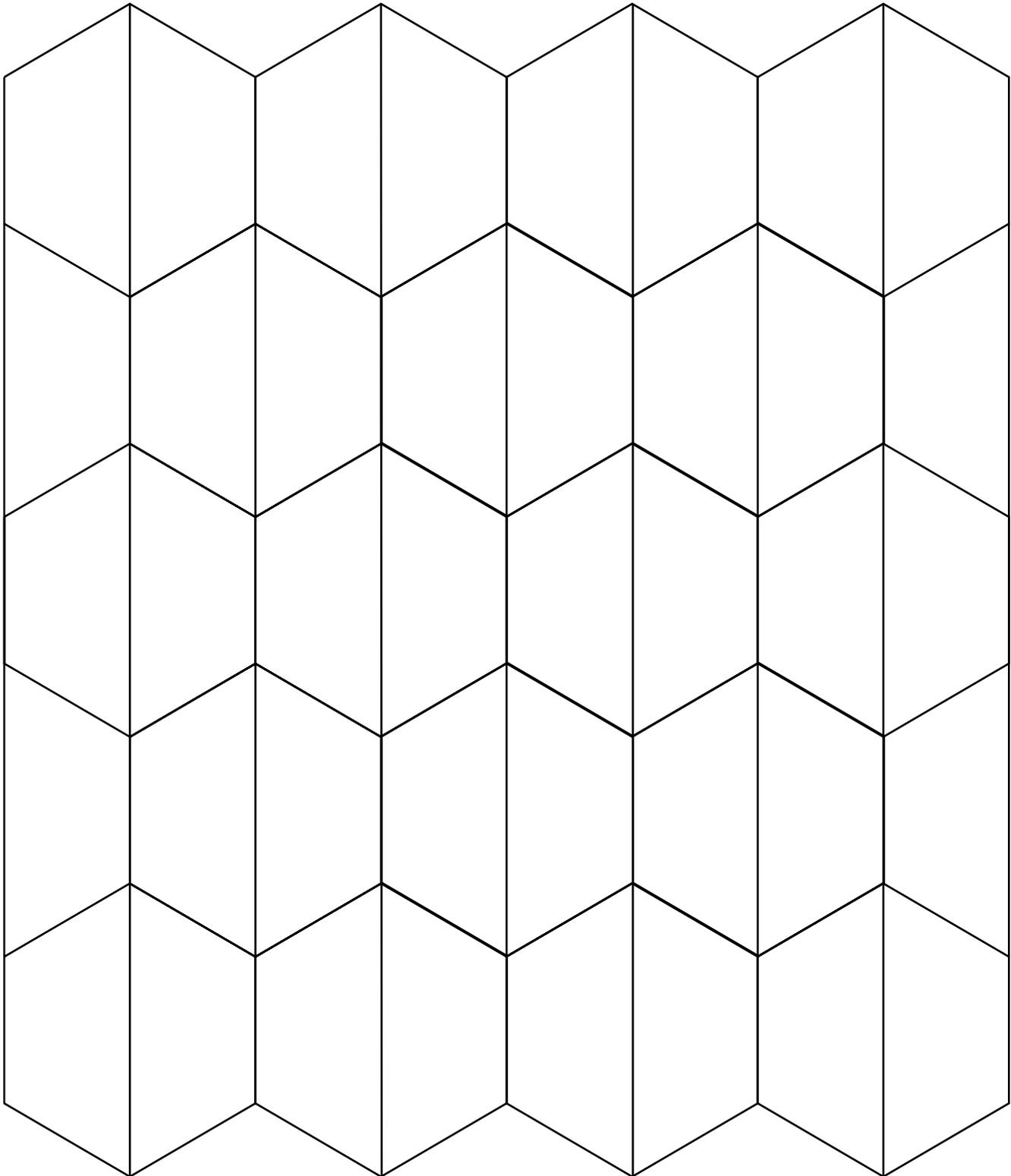


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Pattern Block Cutouts

Directions: Duplicate these trapezoids on red paper and cut apart.

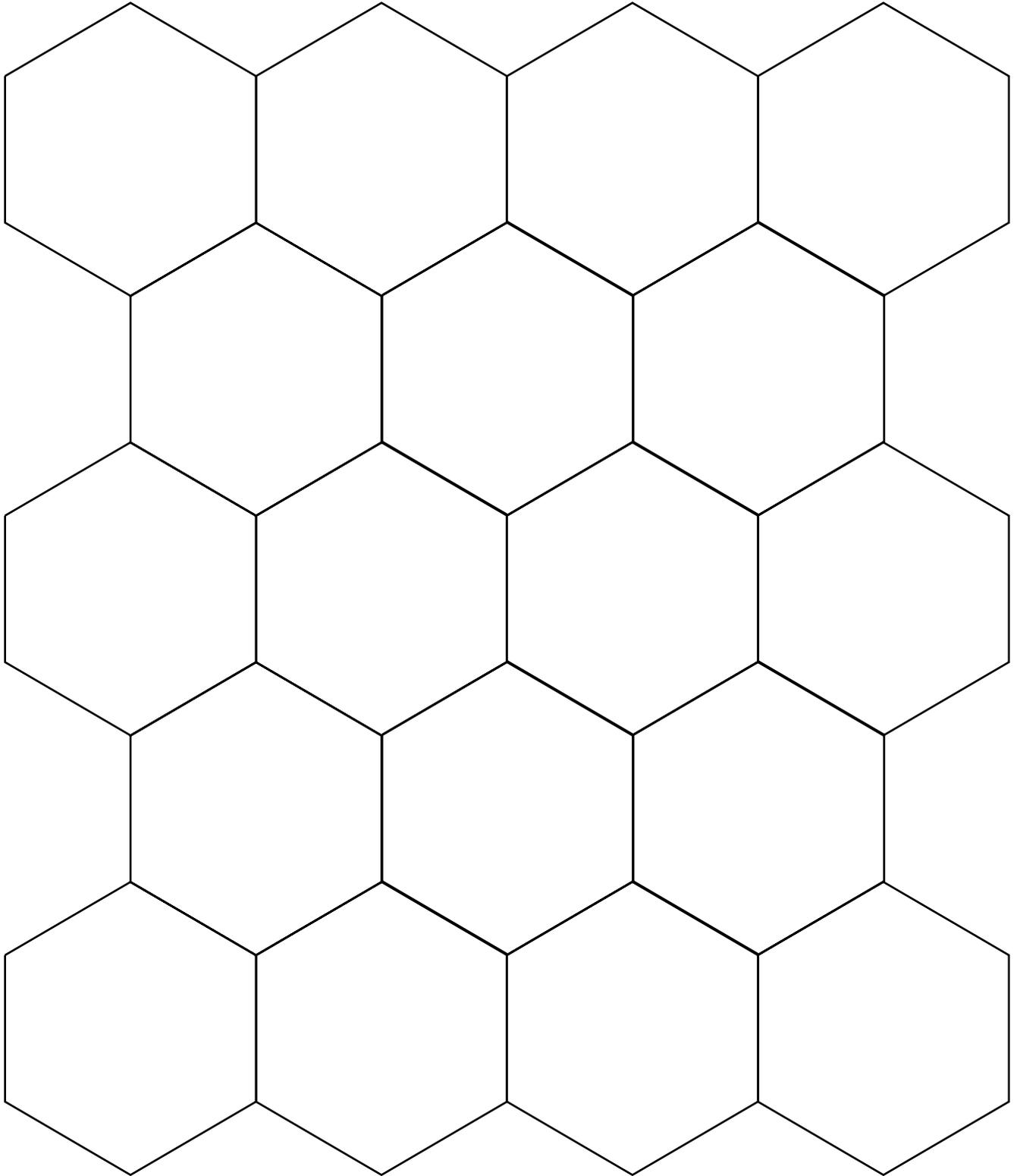


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Pattern Block Cutouts

Directions: Duplicate these hexagons on yellow paper and cut apart.

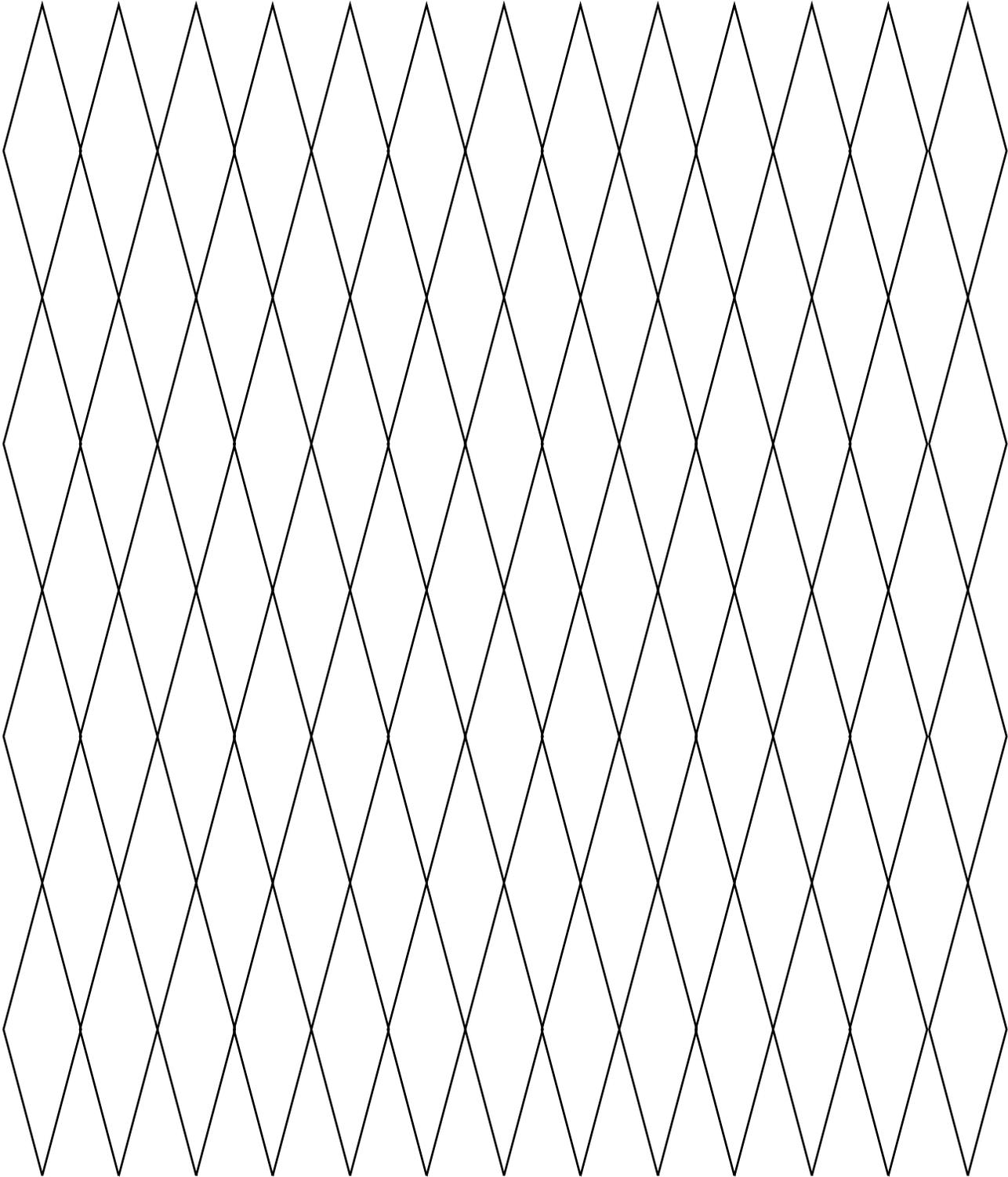


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Pattern Block Cutouts

Directions: Duplicate these rhombuses on tan paper and cut apart.

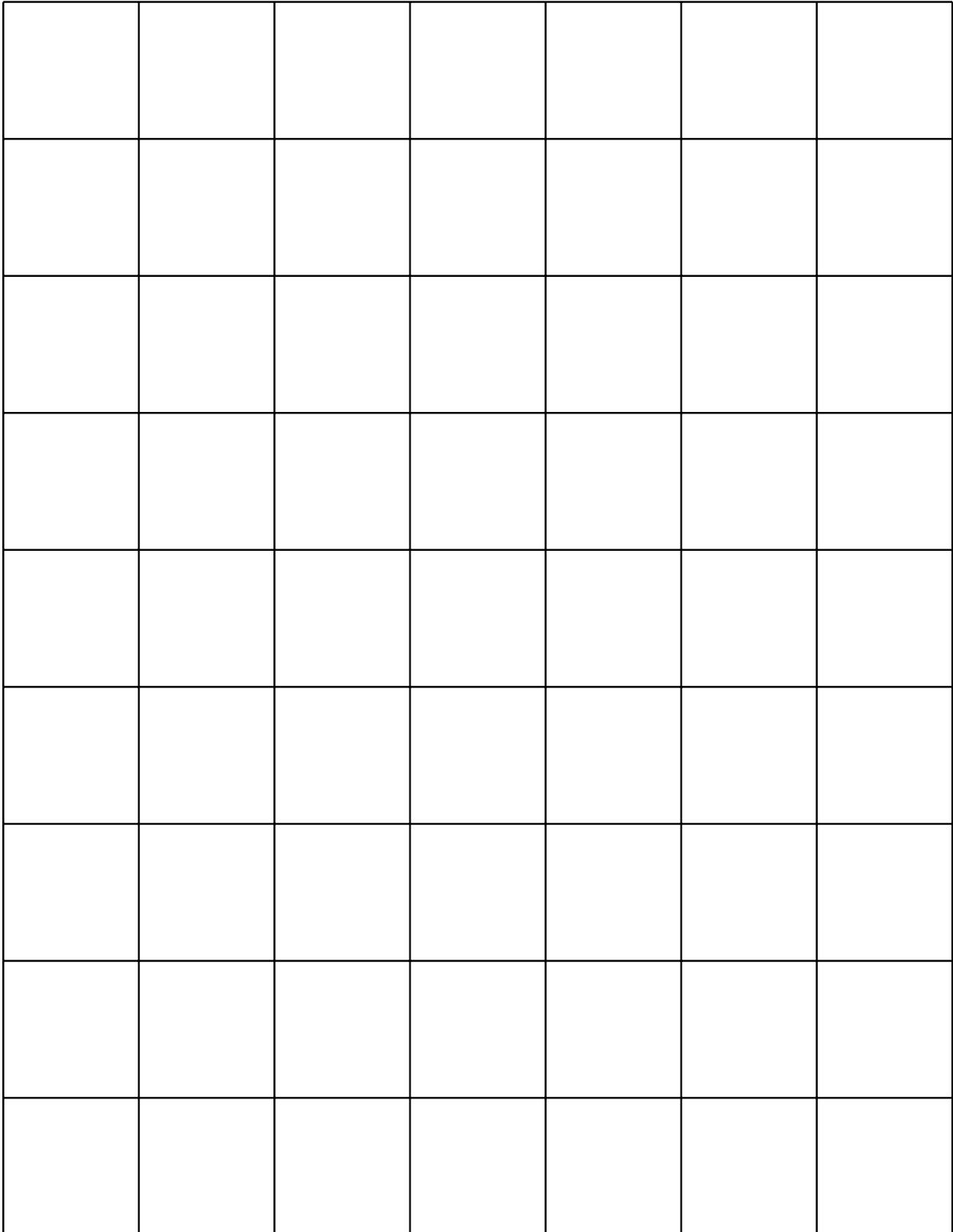


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Pattern Block Cutouts

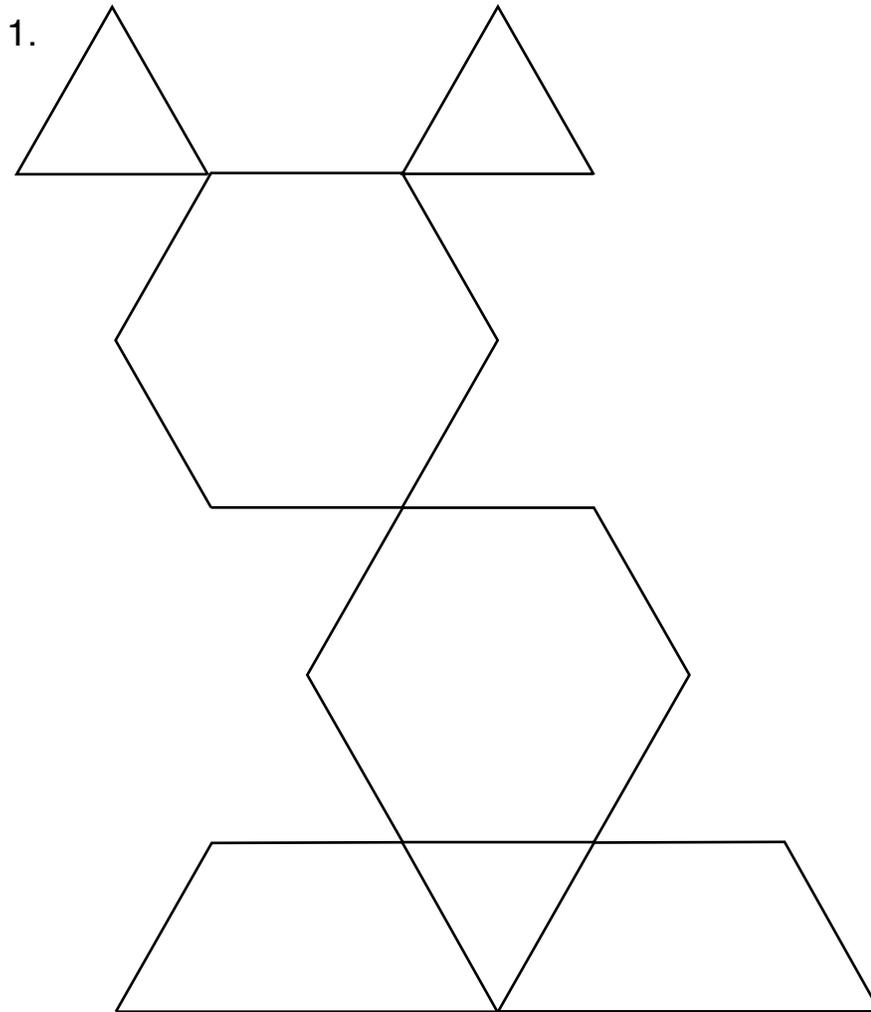
Directions: Duplicate these squares on orange paper and cut apart.



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Pattern Block Puzzles

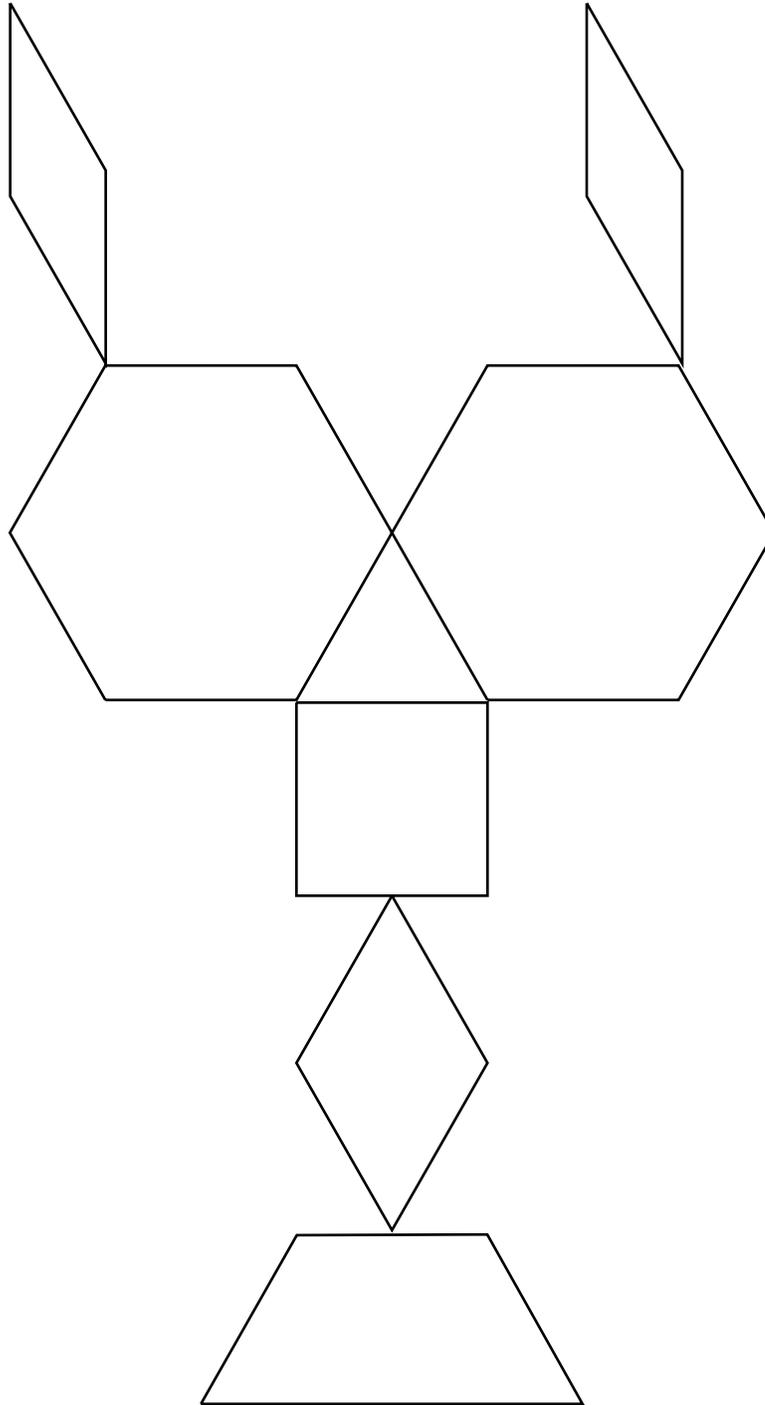


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Pattern Block Puzzles

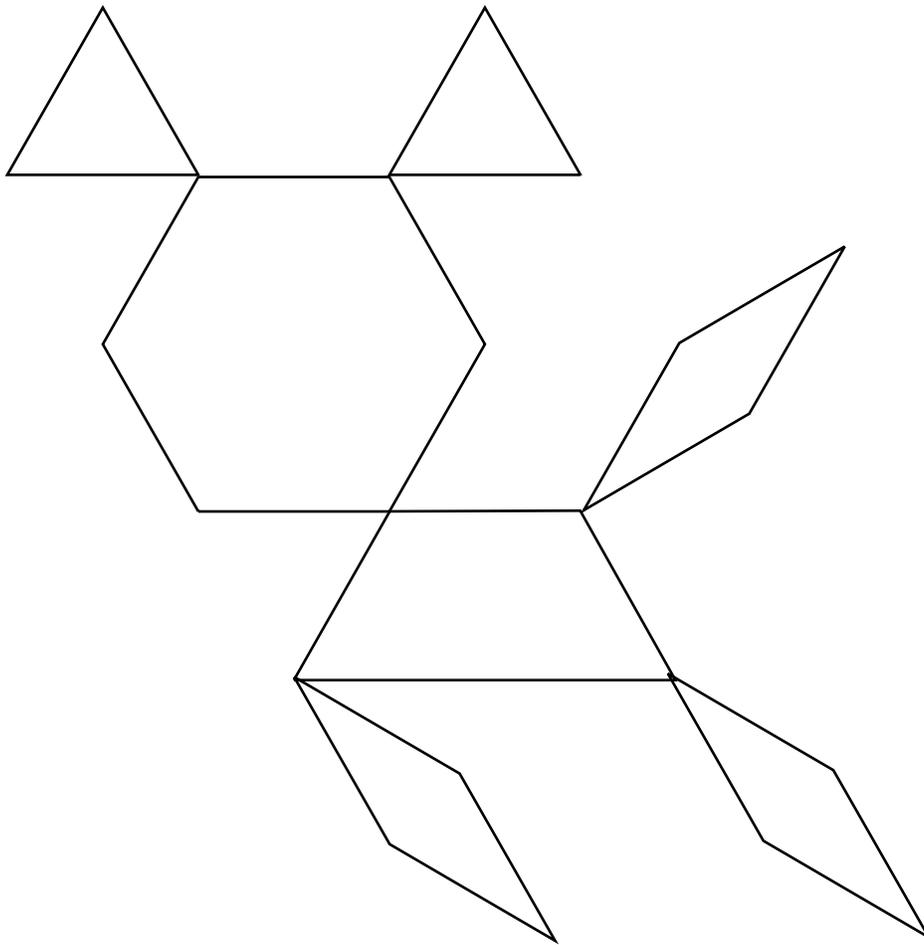
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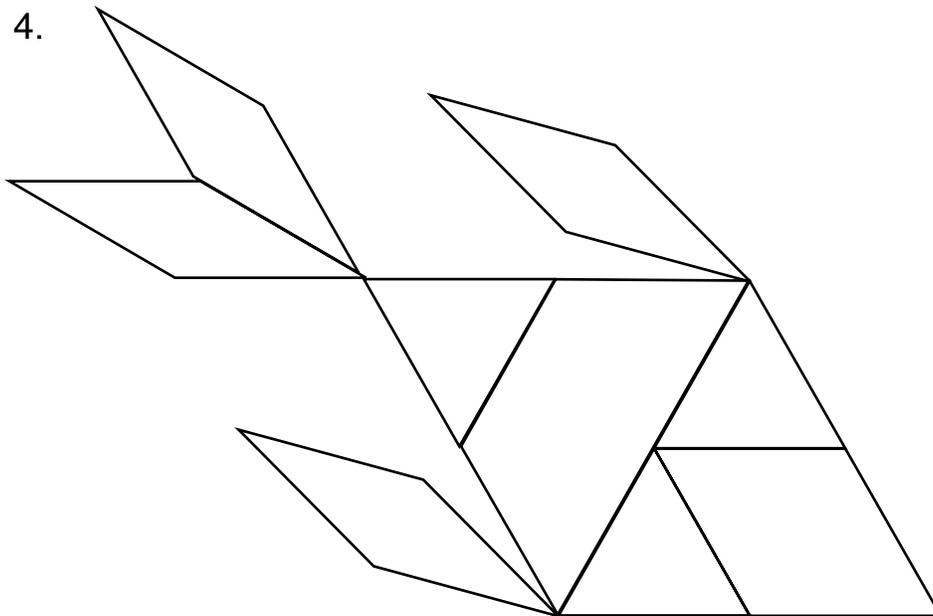


Pattern Block Puzzles

3.



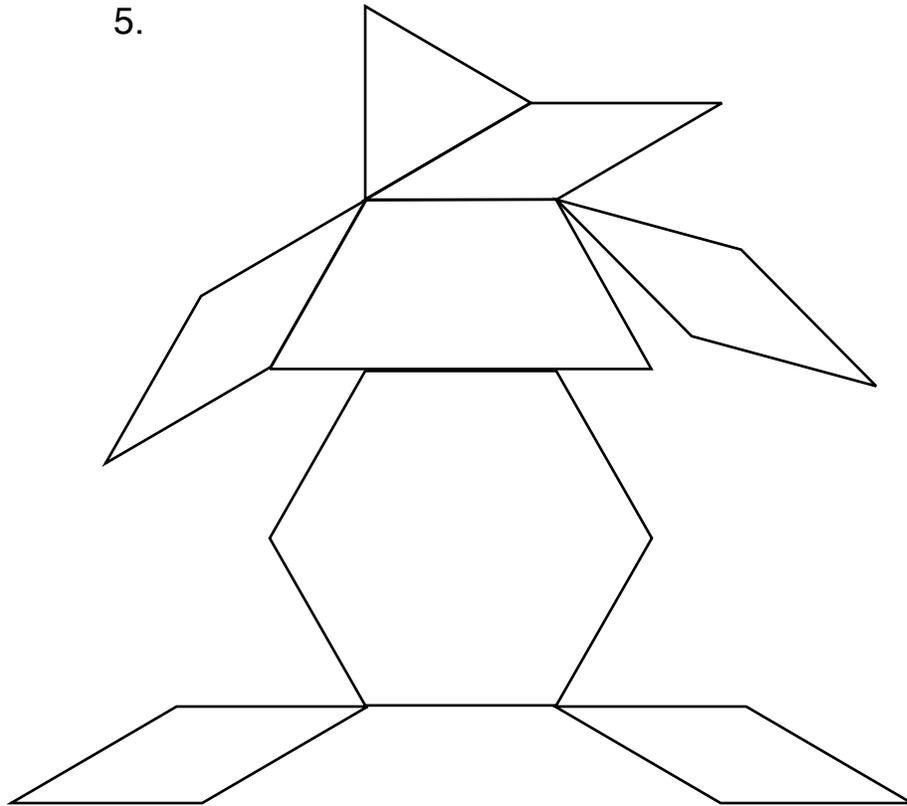
4.



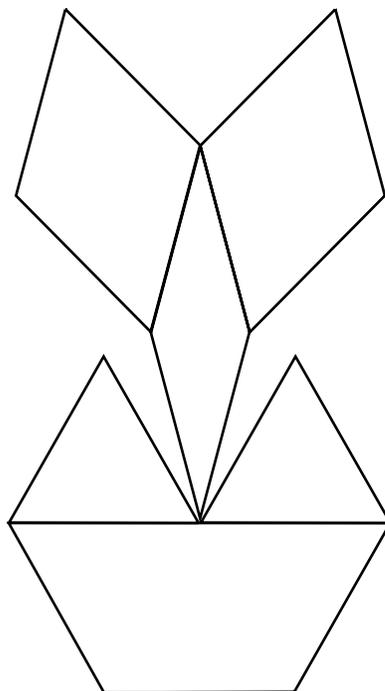


Pattern Block Puzzles

5.



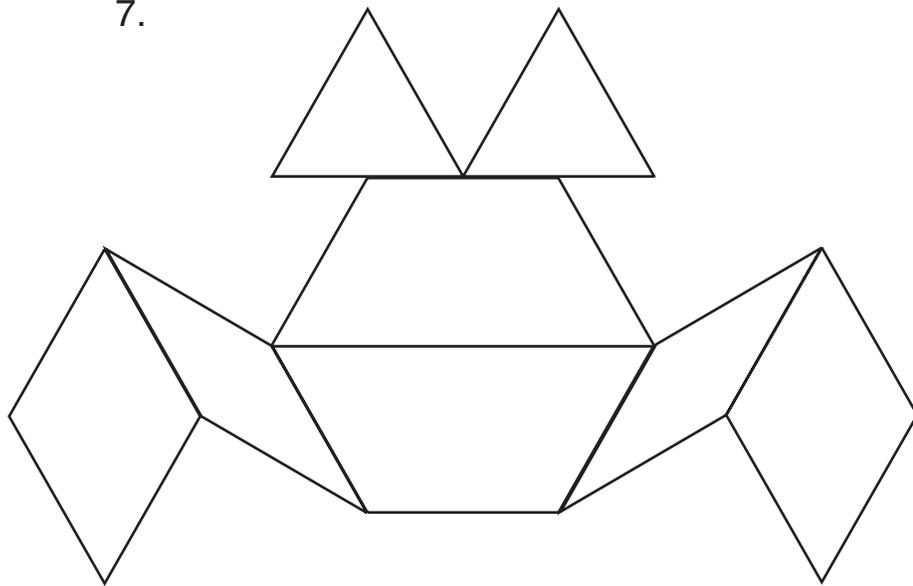
6.



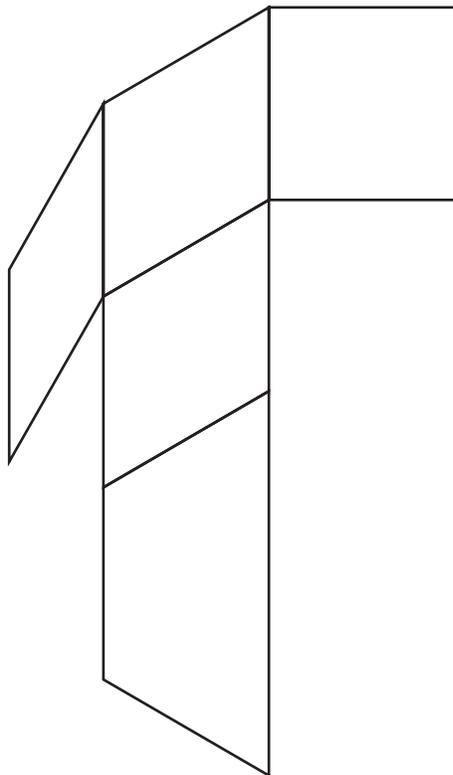


Pattern Block Puzzles

7.



8.

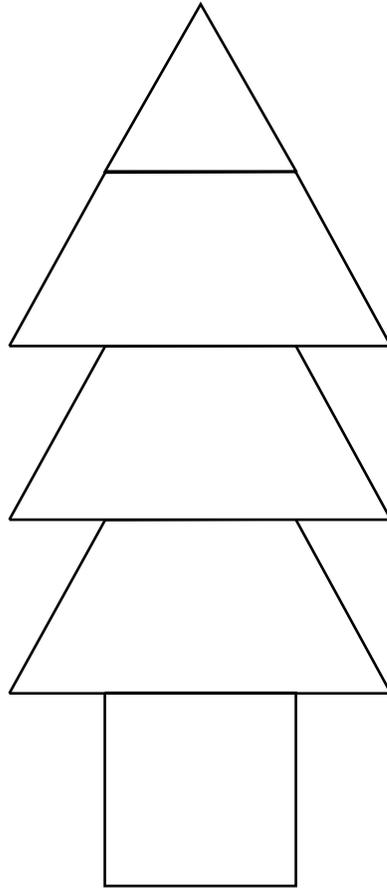


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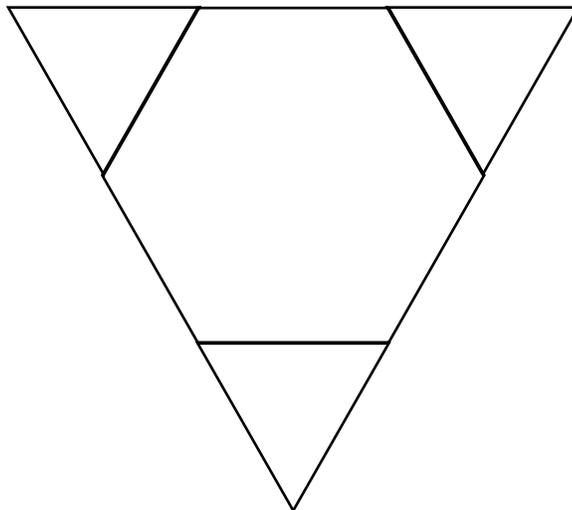


Pattern Block Puzzles

9.



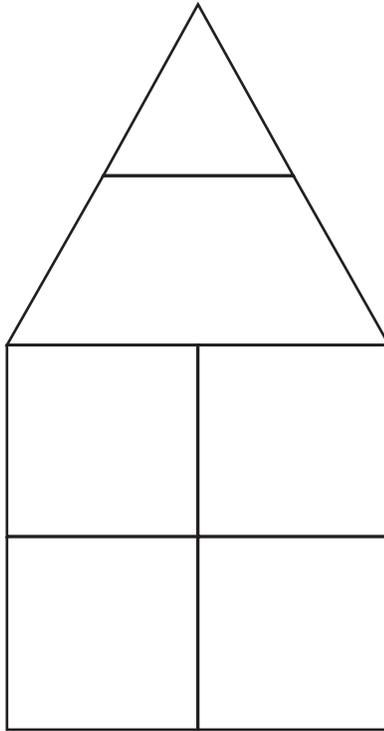
10.



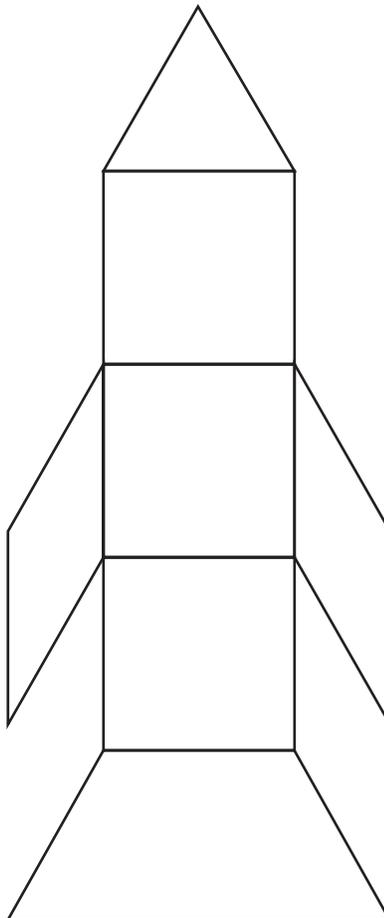


Pattern Block Puzzles

11.



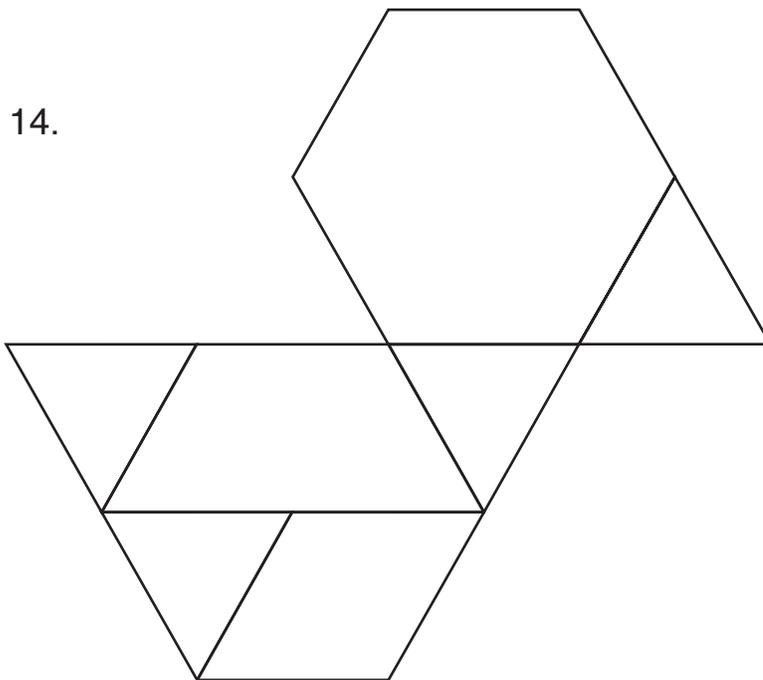
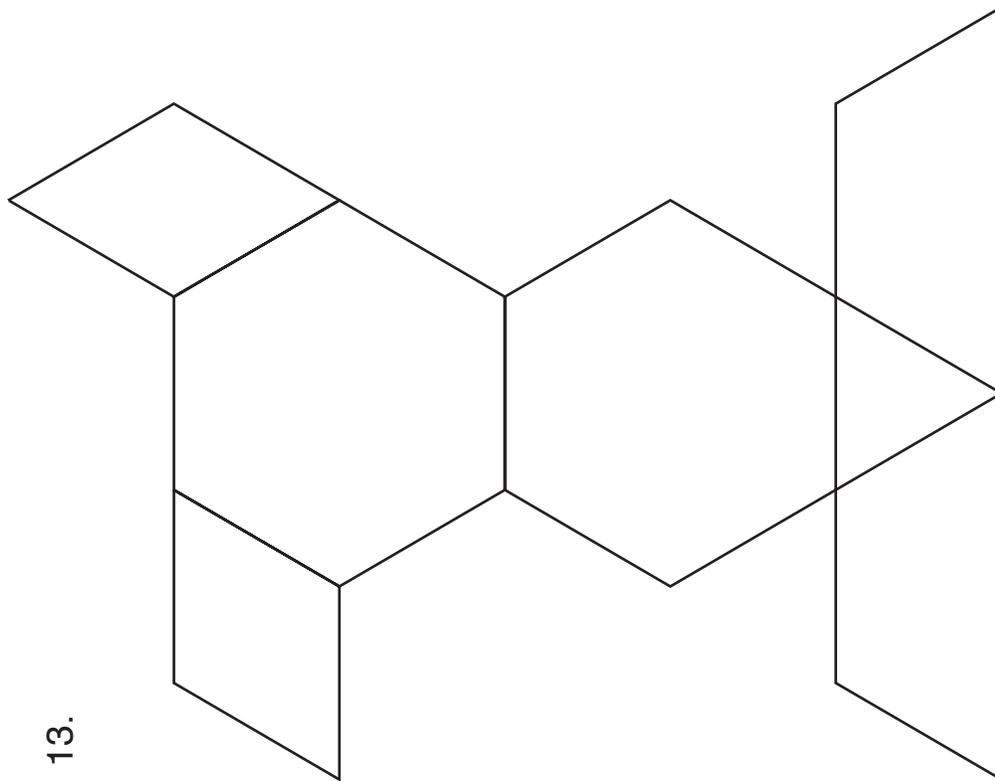
12.



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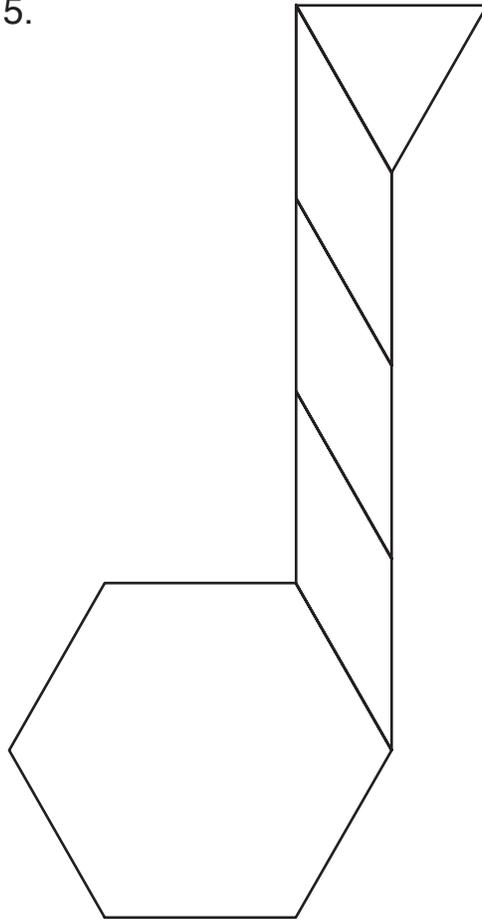
Pattern Block Puzzles



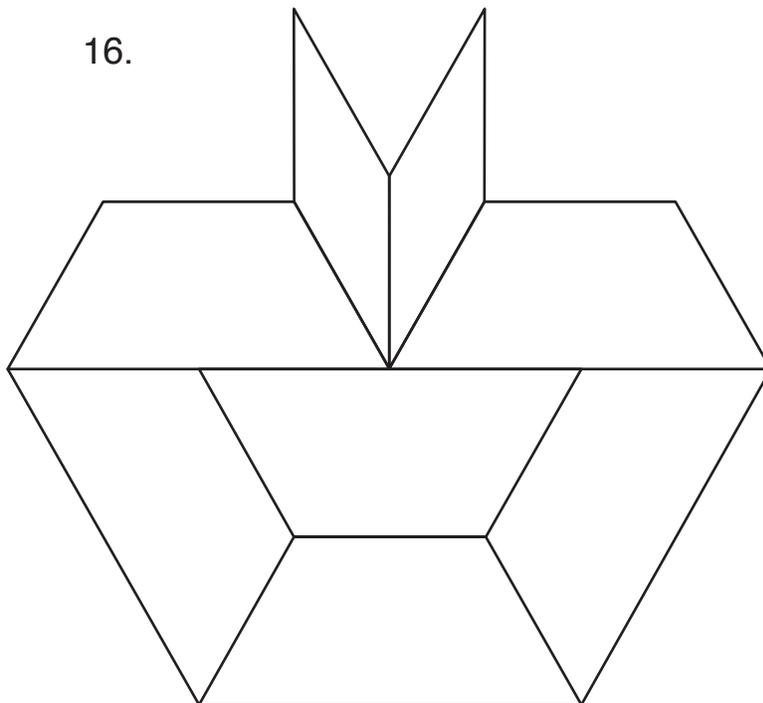


Pattern Block Puzzles

15.



16.

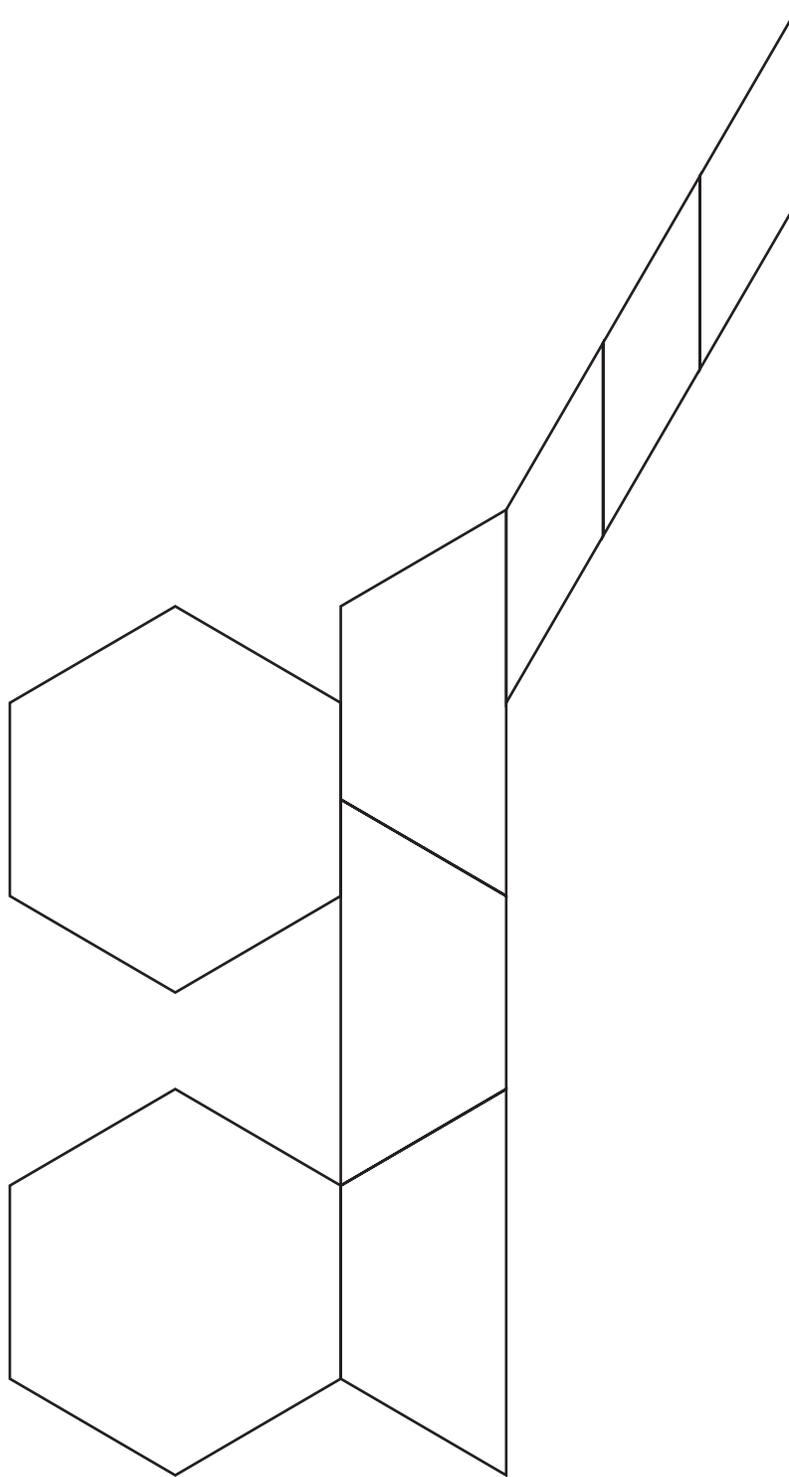


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Pattern Block Puzzles

17.

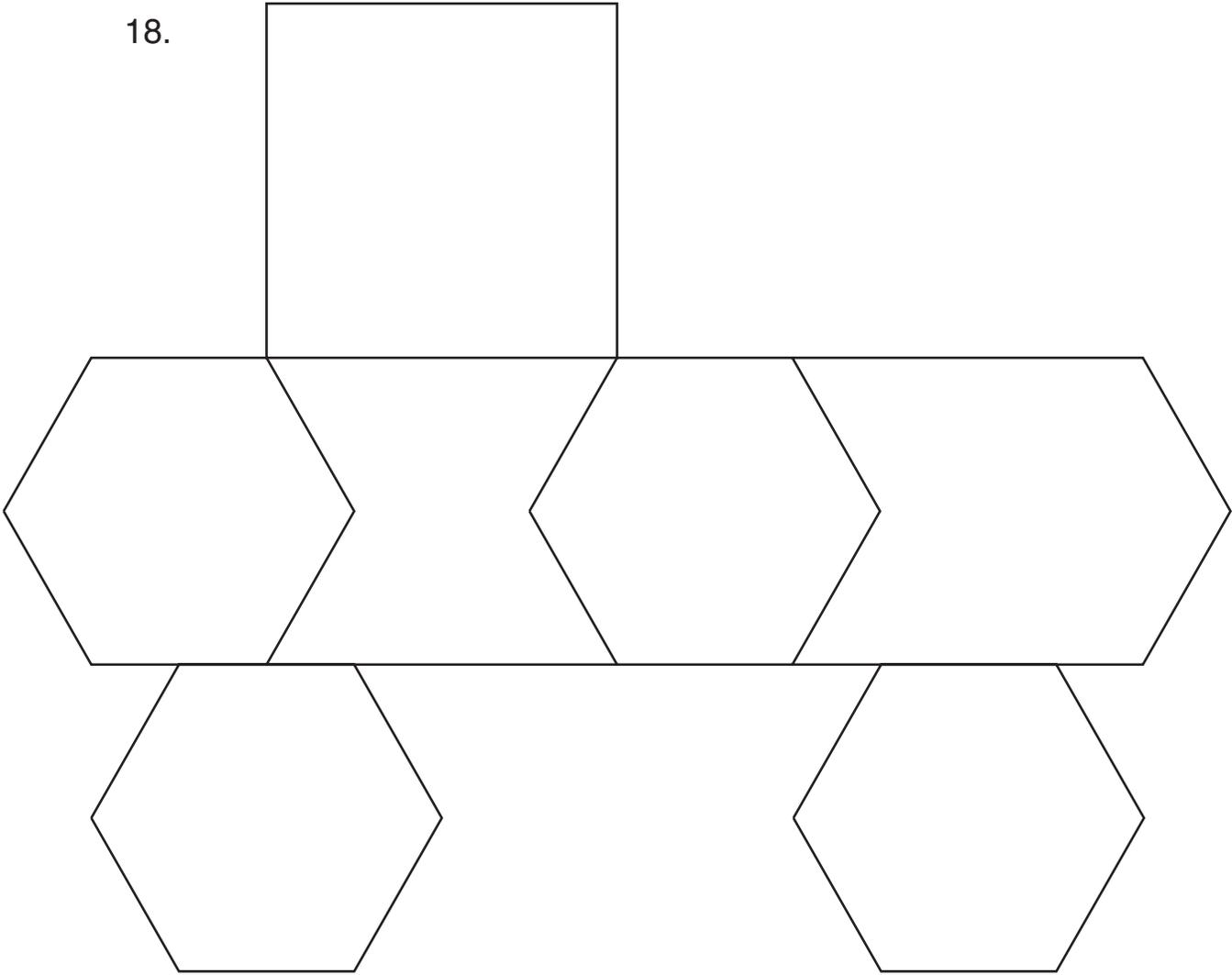


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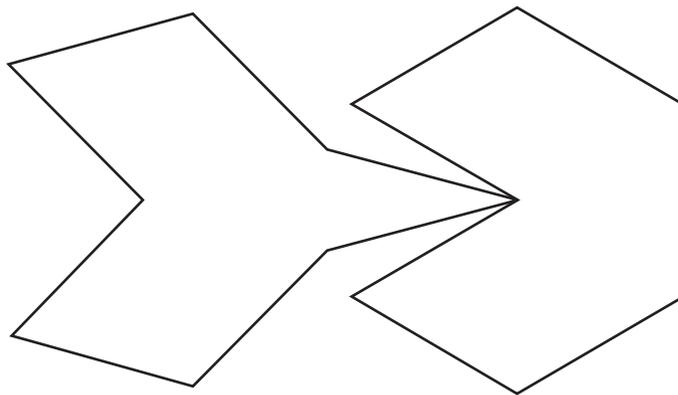


Pattern Block Puzzles

18.



19.

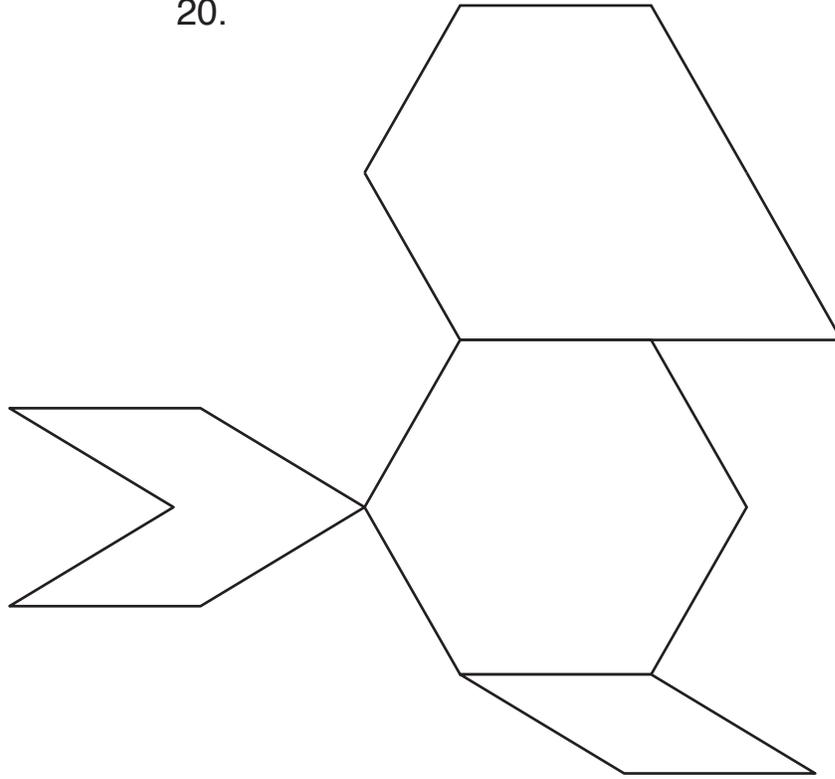


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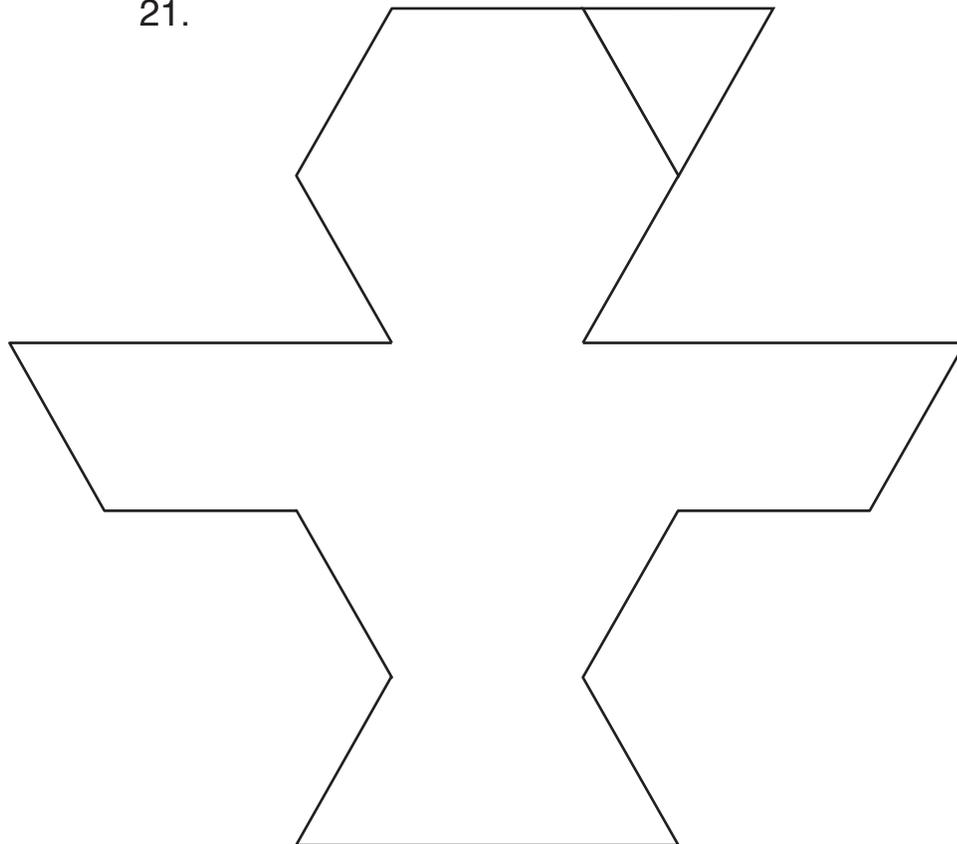


Pattern Block Puzzles

20.



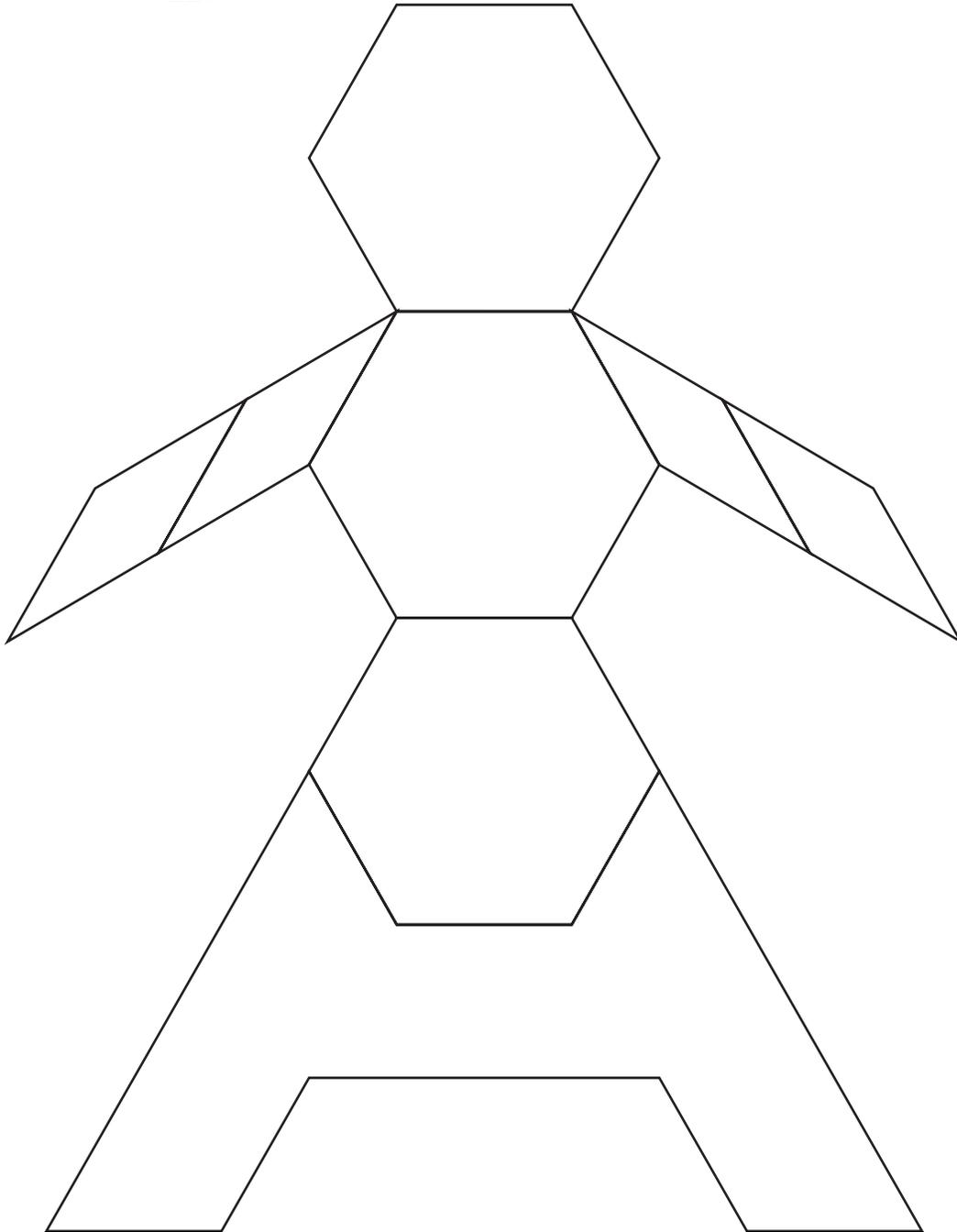
21.





Pattern Block Puzzles

22.

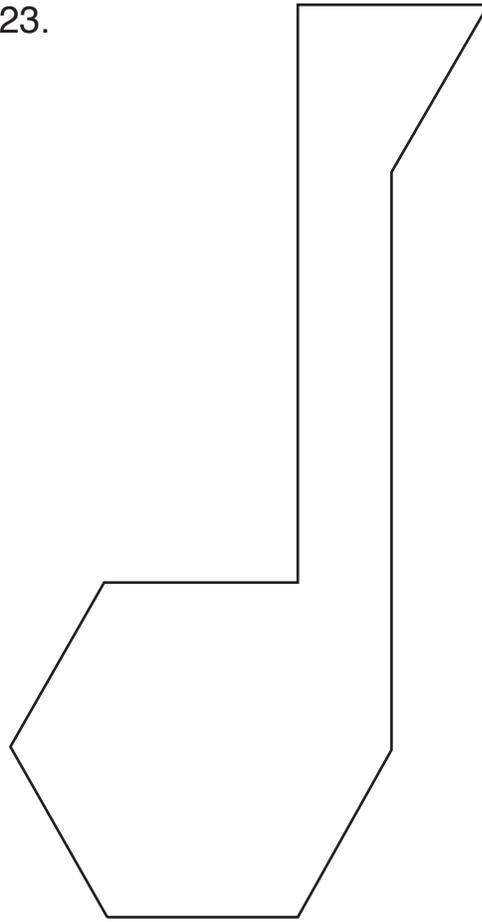


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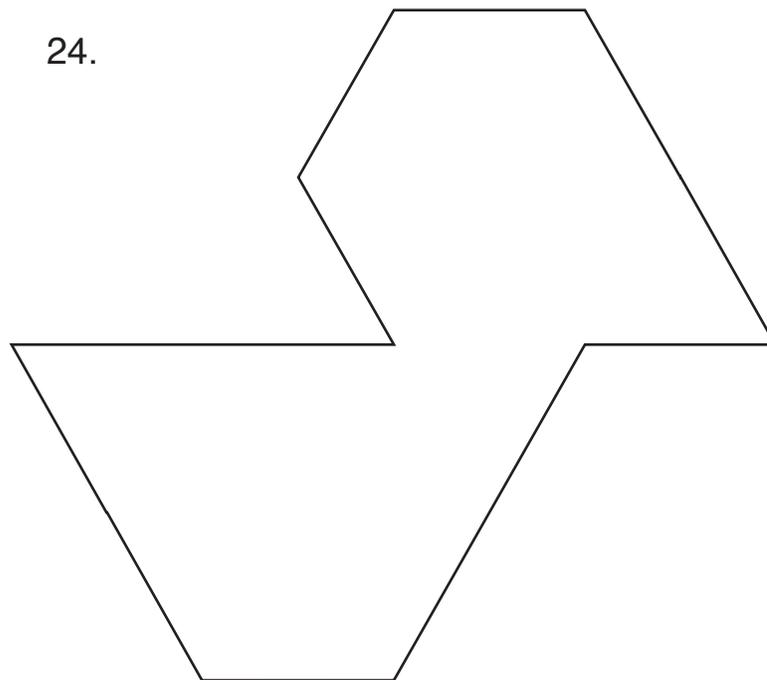


Pattern Block Puzzles

23.



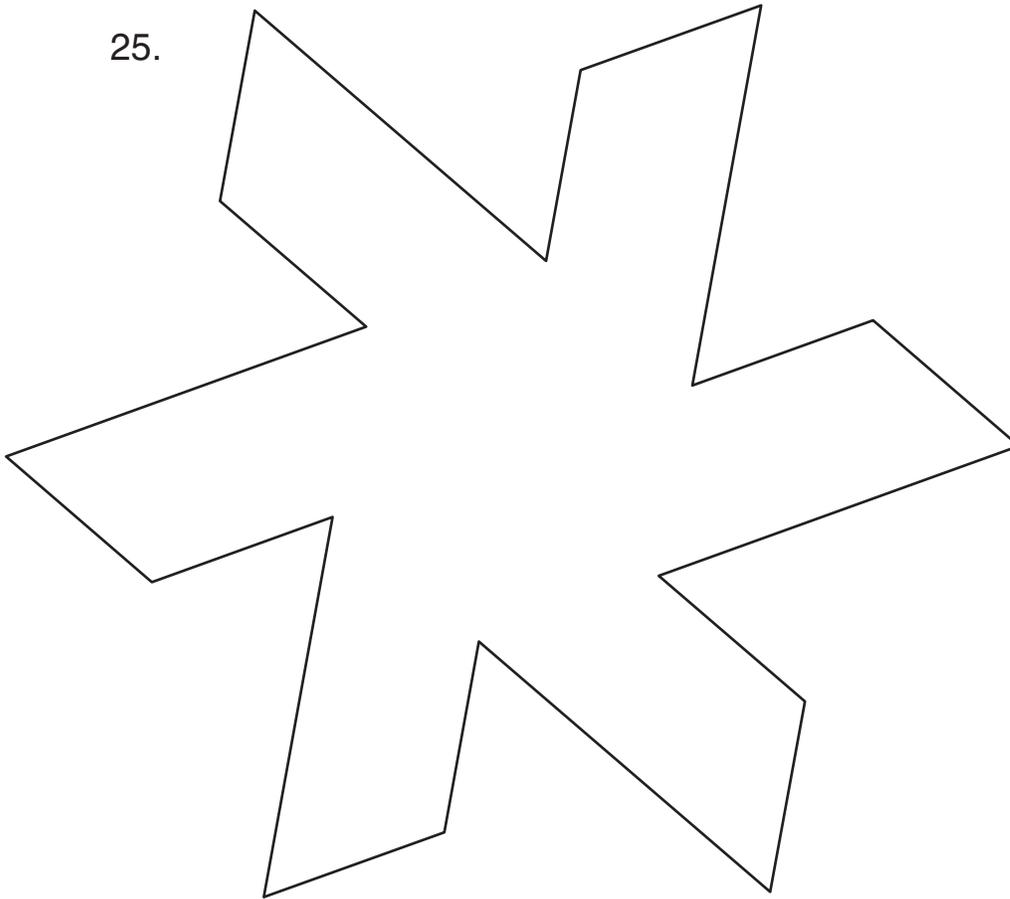
24.



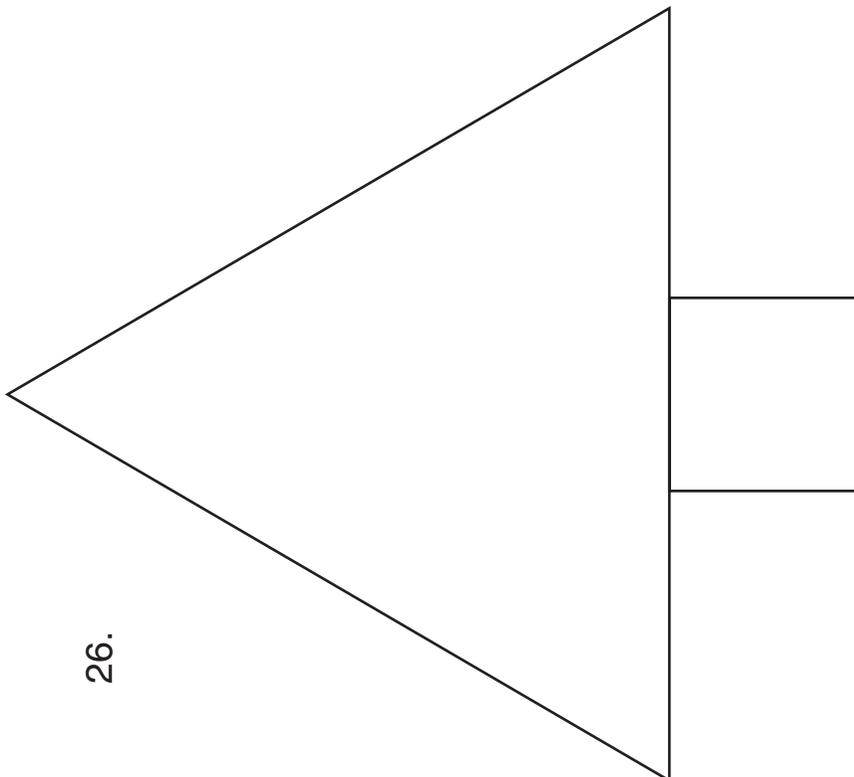


Pattern Block Puzzles

25.



26.

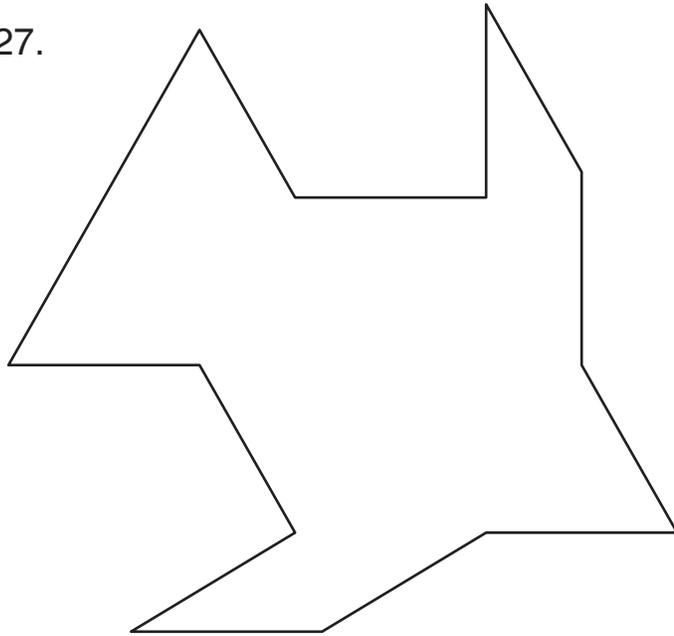


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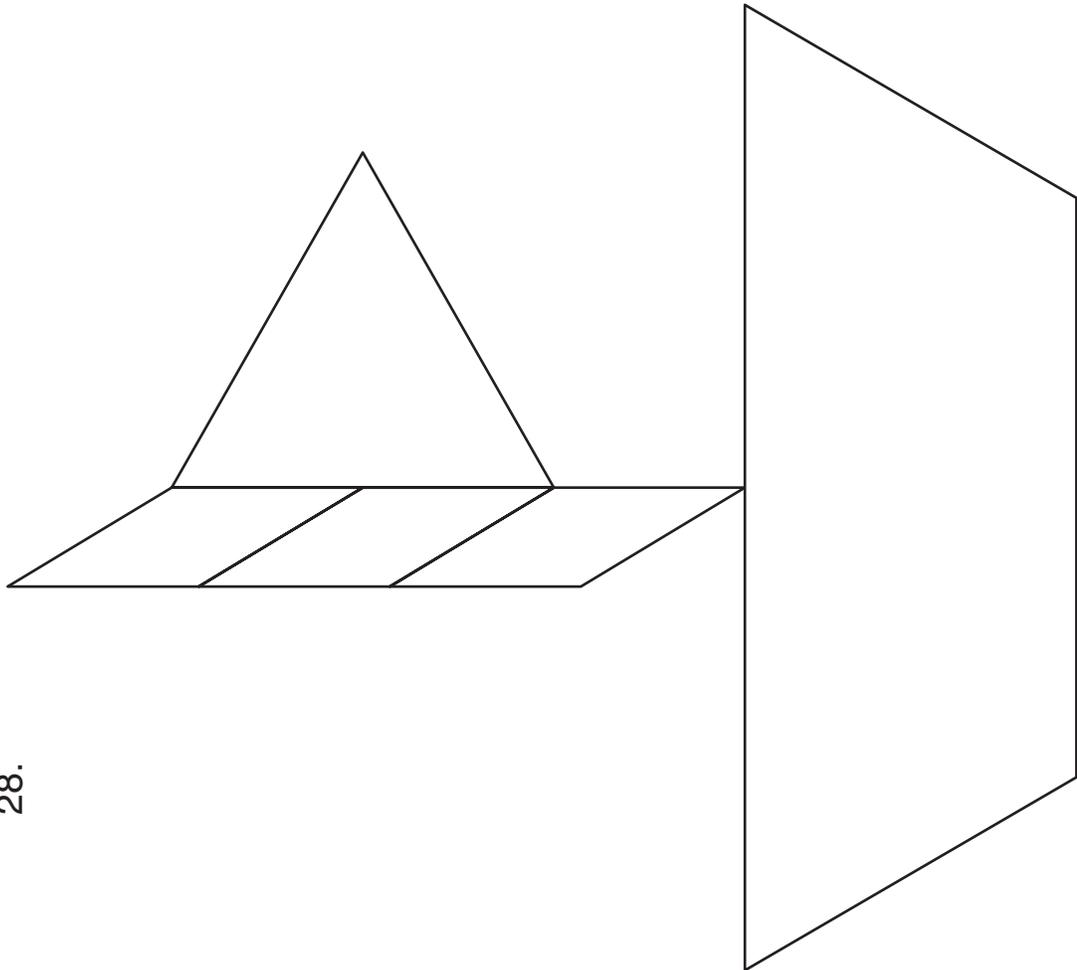


Pattern Block Puzzles

27.



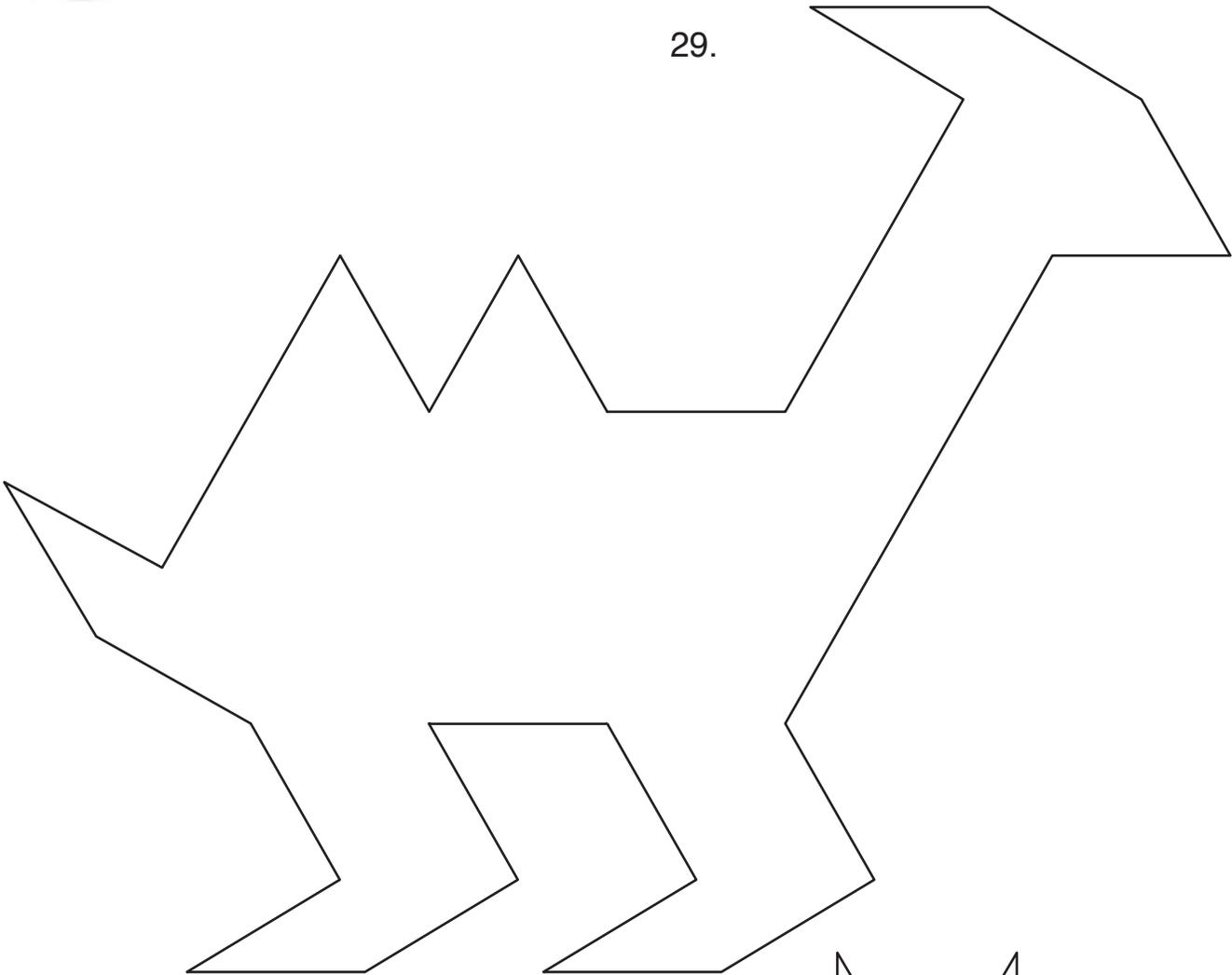
28.



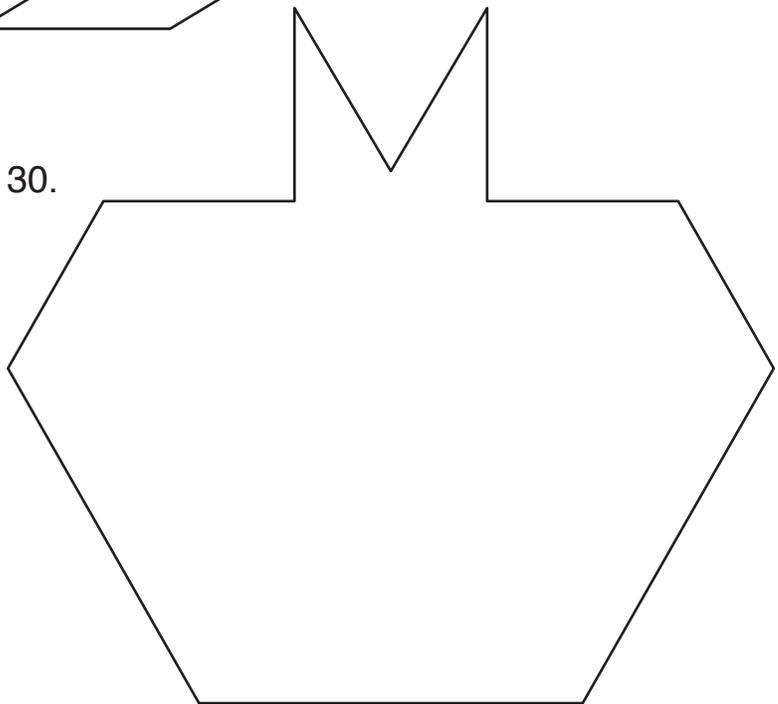


Pattern Block Puzzles

29.



30.

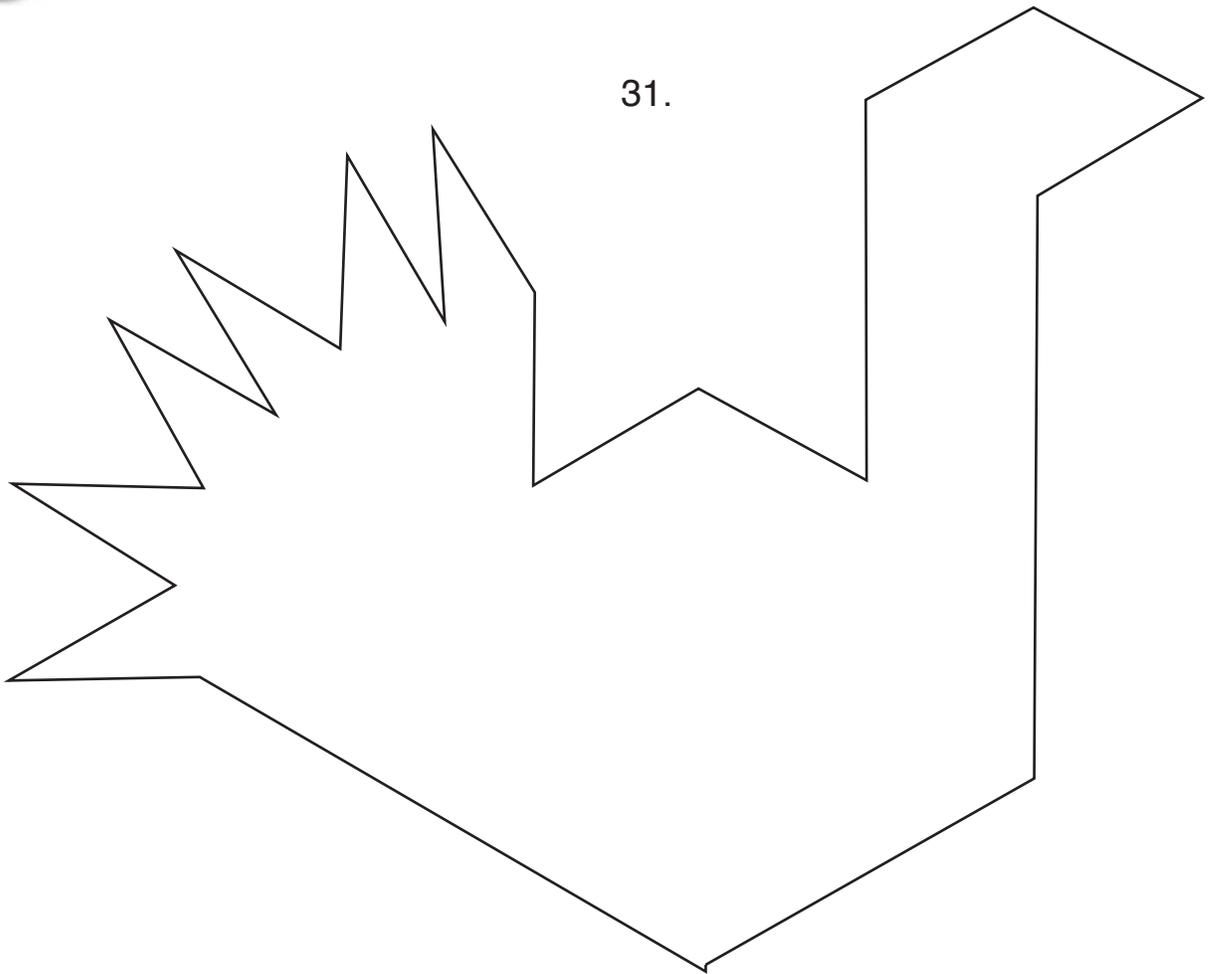


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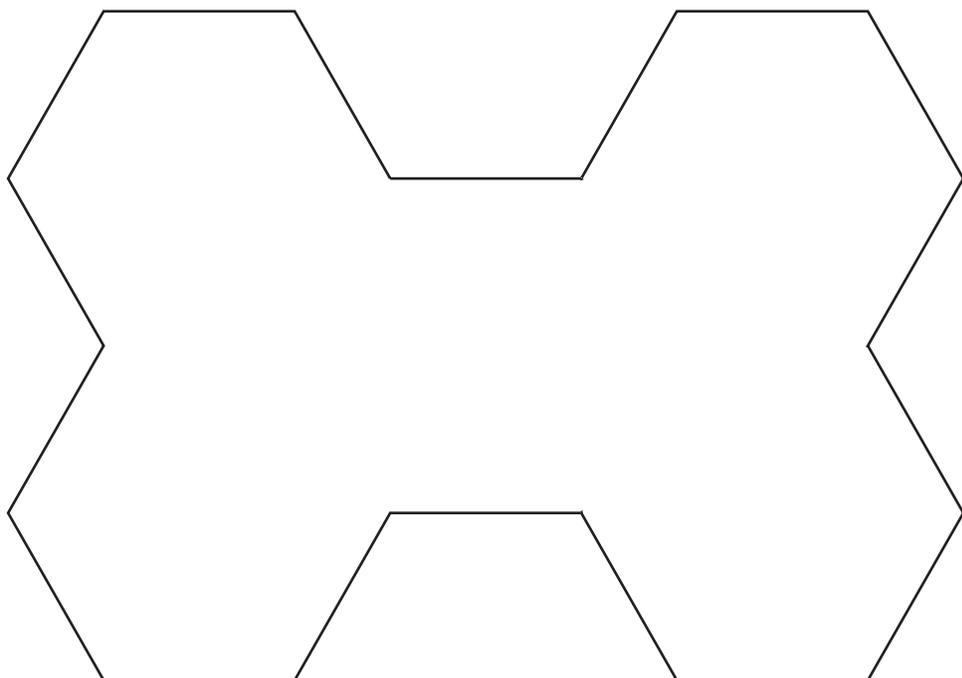


Pattern Block Puzzles

31.

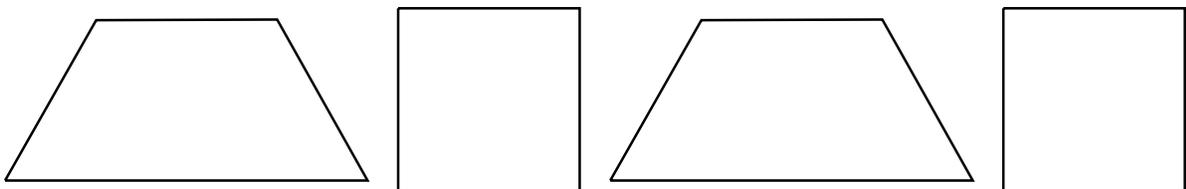
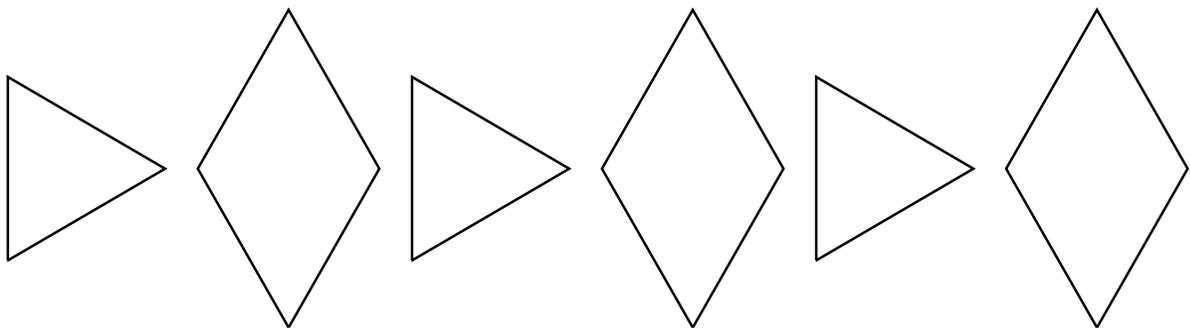
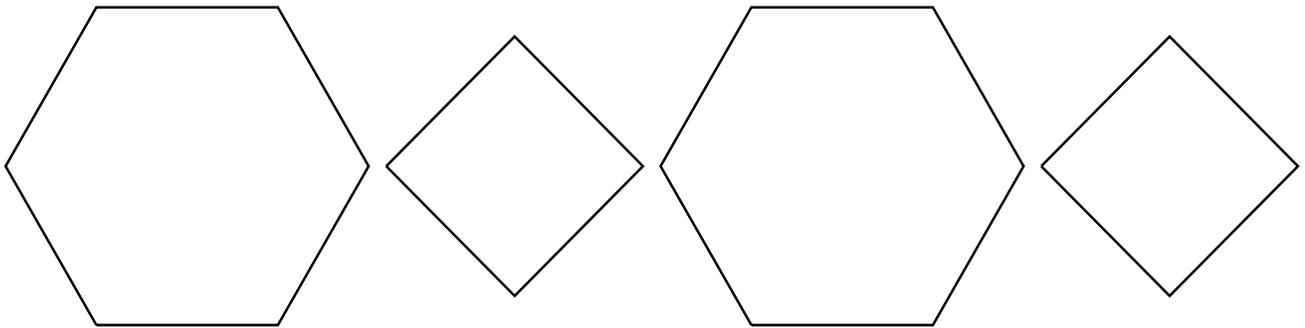
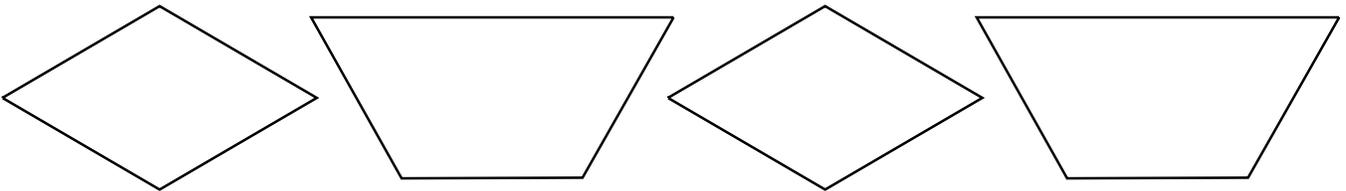
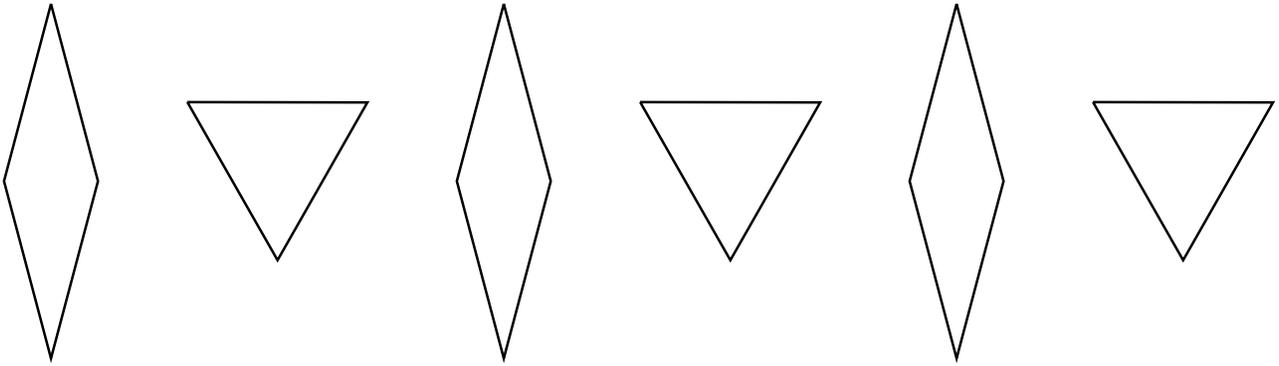


32.





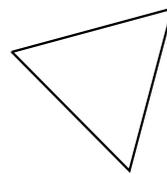
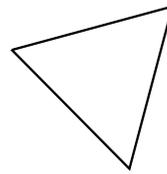
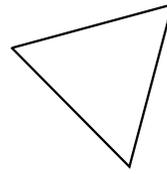
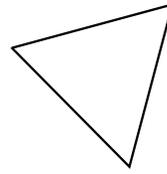
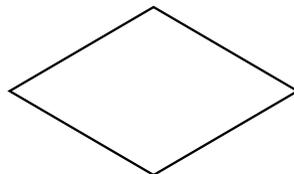
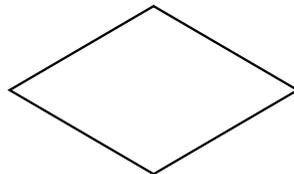
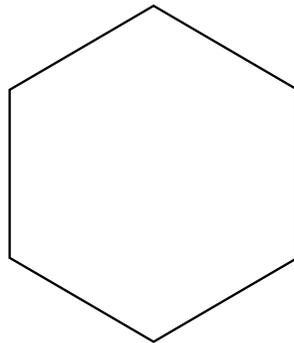
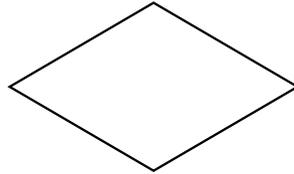
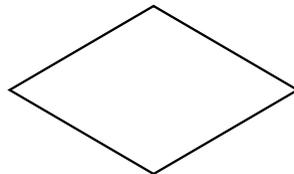
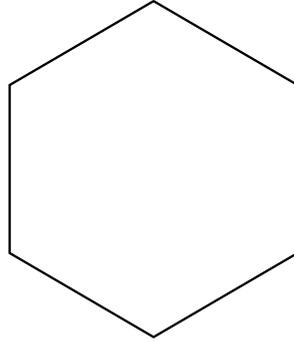
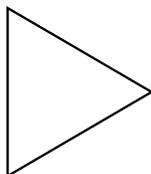
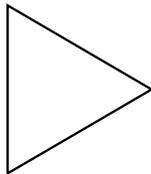
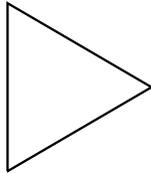
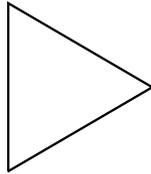
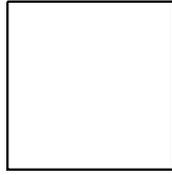
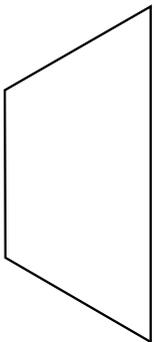
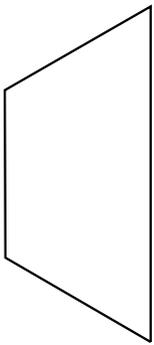
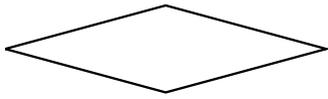
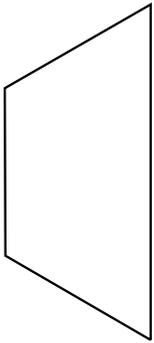
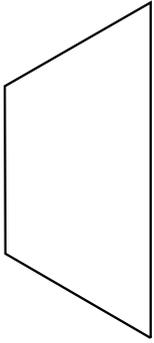
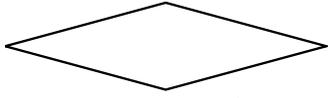
Pattern Strips: Level 1 Shapes



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Pattern Strips: Level 2 Shapes



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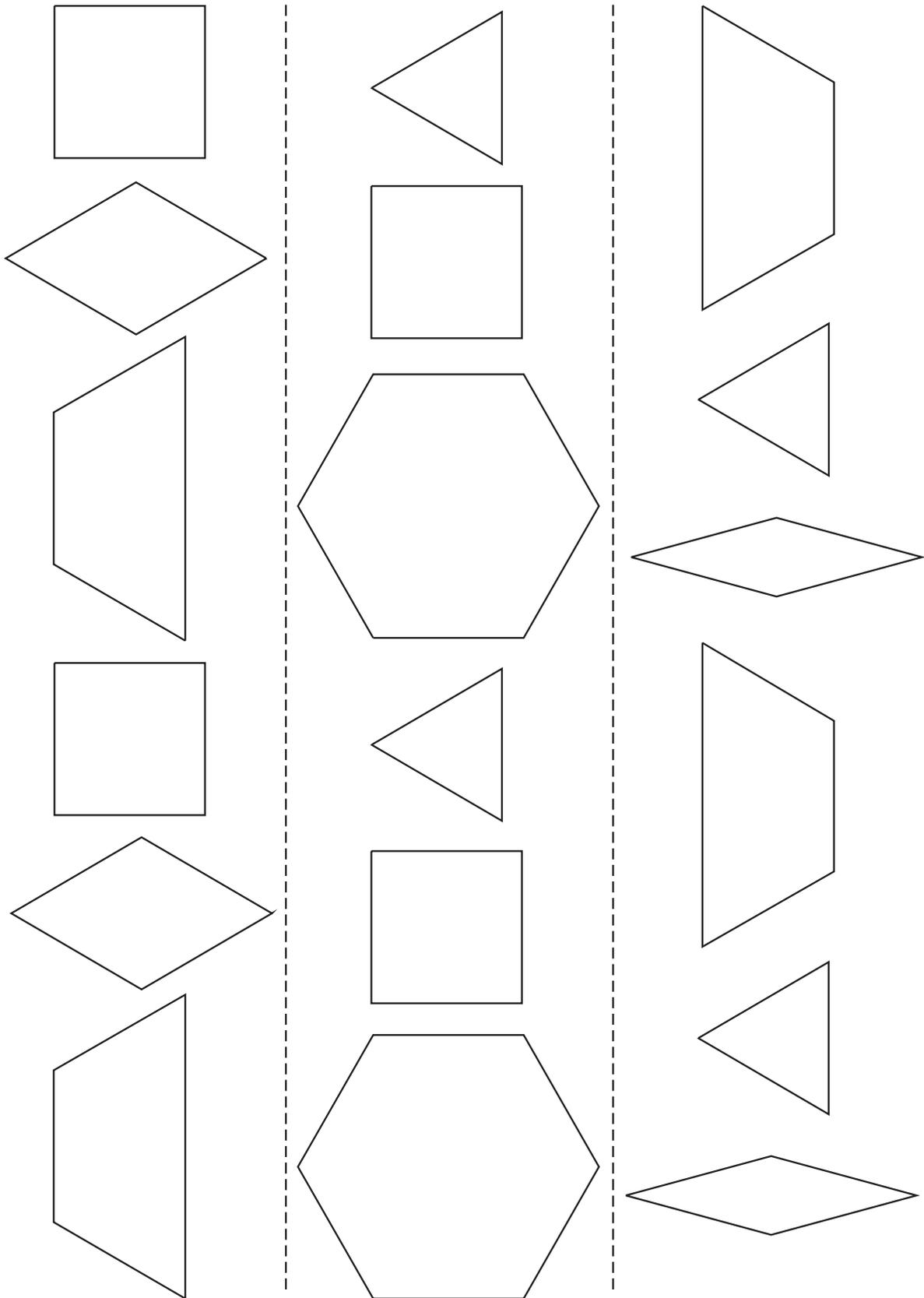


Pattern Strips: Level 3 Shapes

The worksheet displays three vertical columns of shapes, separated by dashed lines. Each column contains a sequence of shapes for a pattern strip. The first column has two parallelograms, a diamond, two parallelograms, two parallelograms, and a diamond. The second column has two triangles, a diamond, two triangles, and a diamond. The third column has two trapezoids, a square, two trapezoids, and a square.



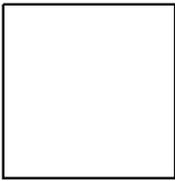
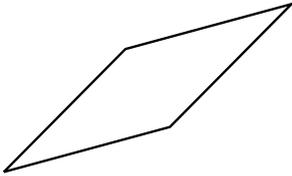
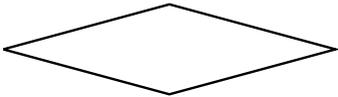
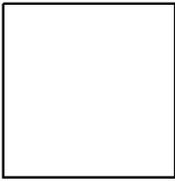
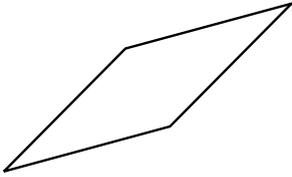
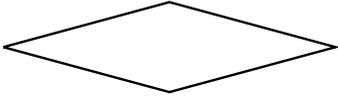
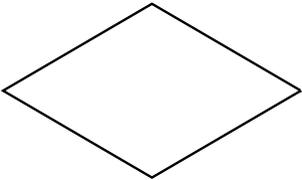
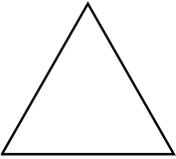
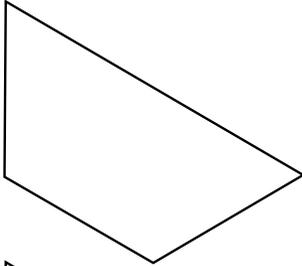
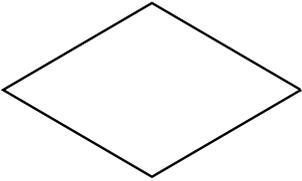
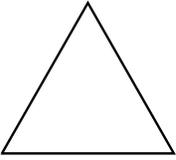
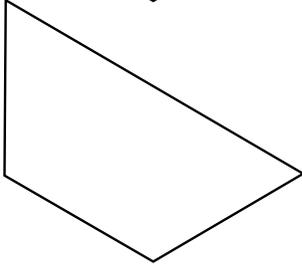
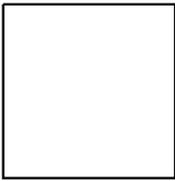
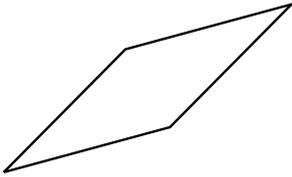
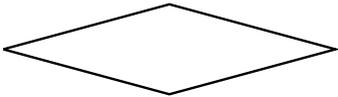
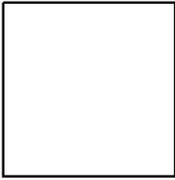
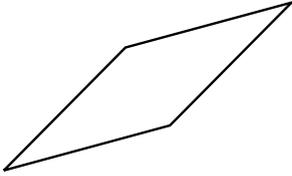
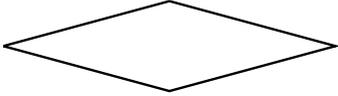
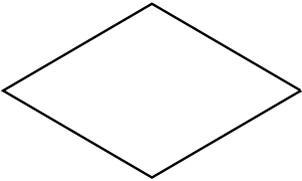
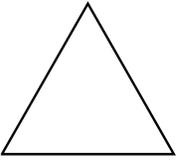
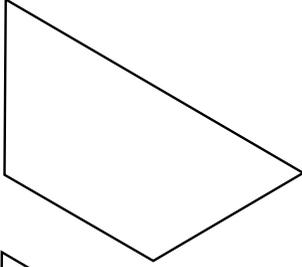
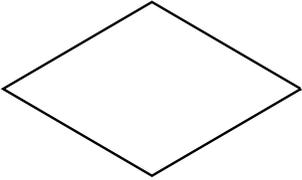
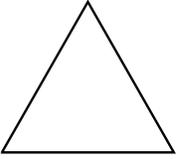
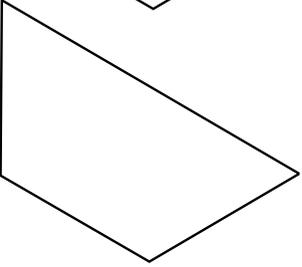
Pattern Strips: Level 4 Shapes



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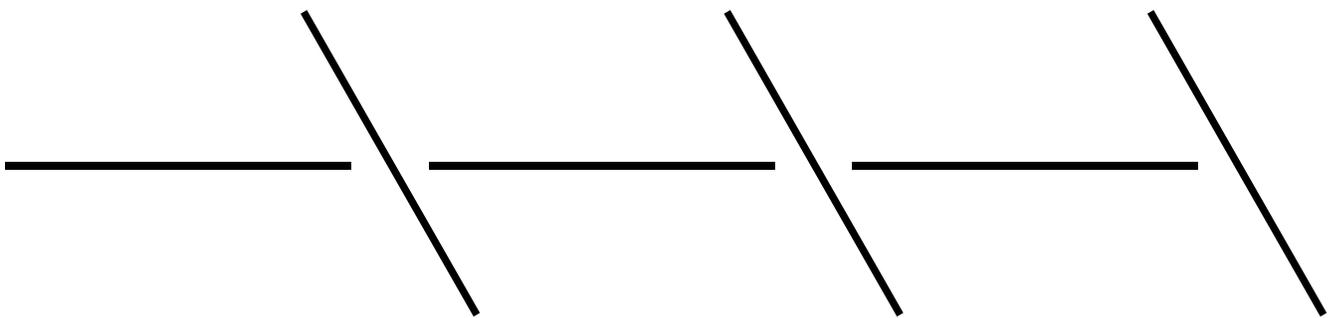
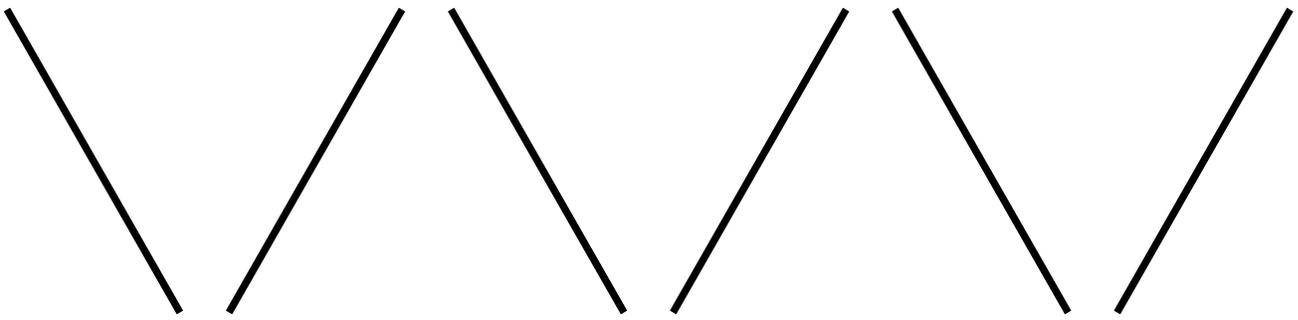
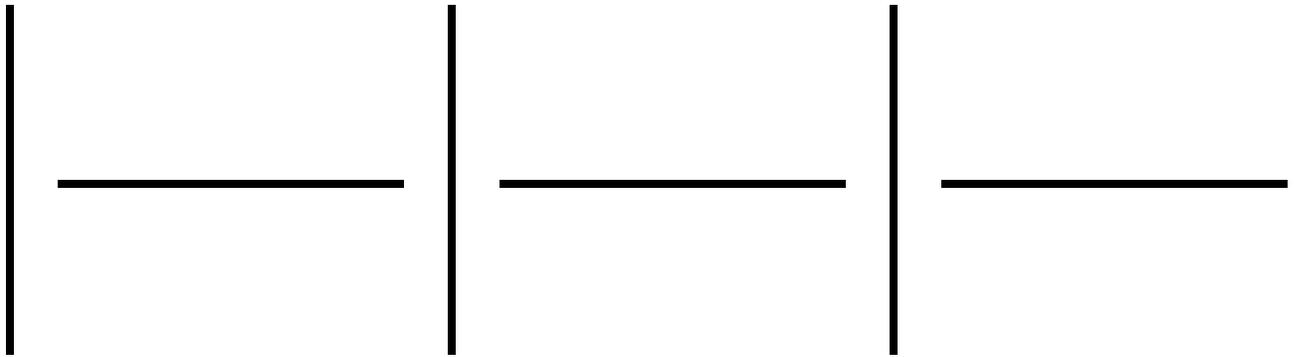
Pattern Strips: Level 5 Shapes

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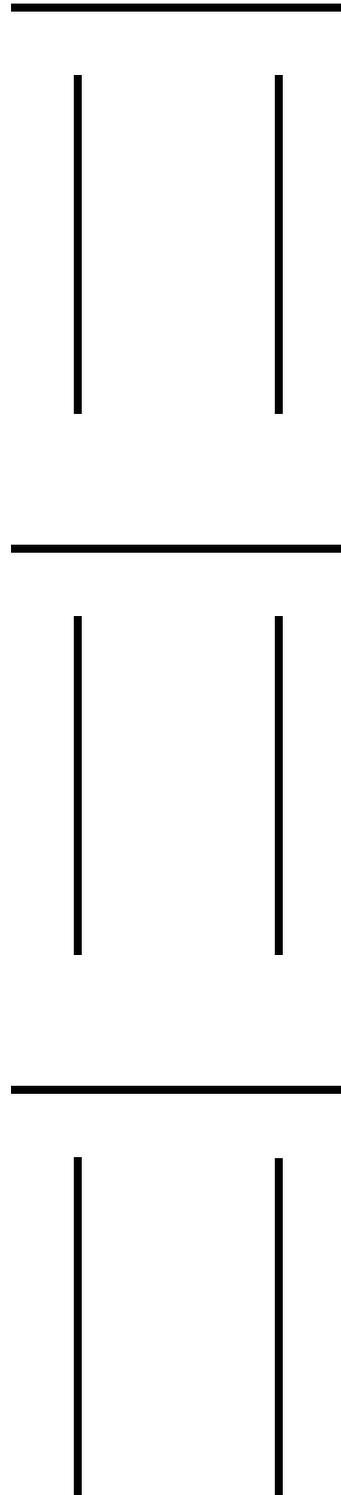
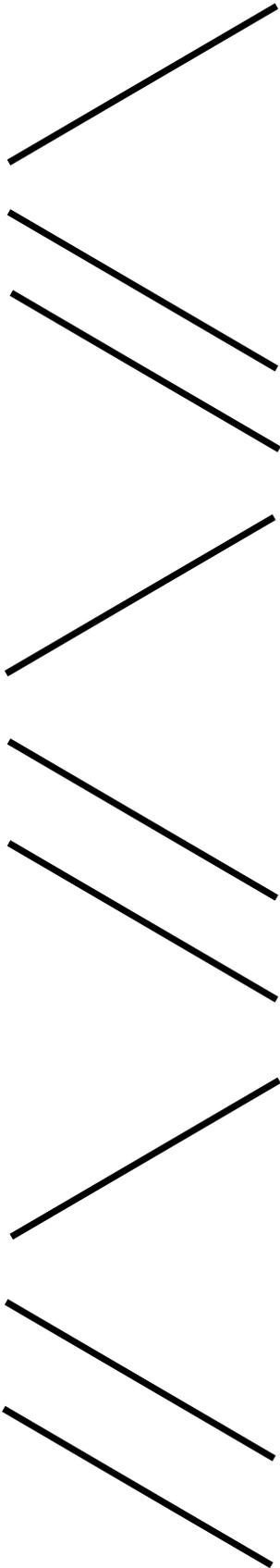
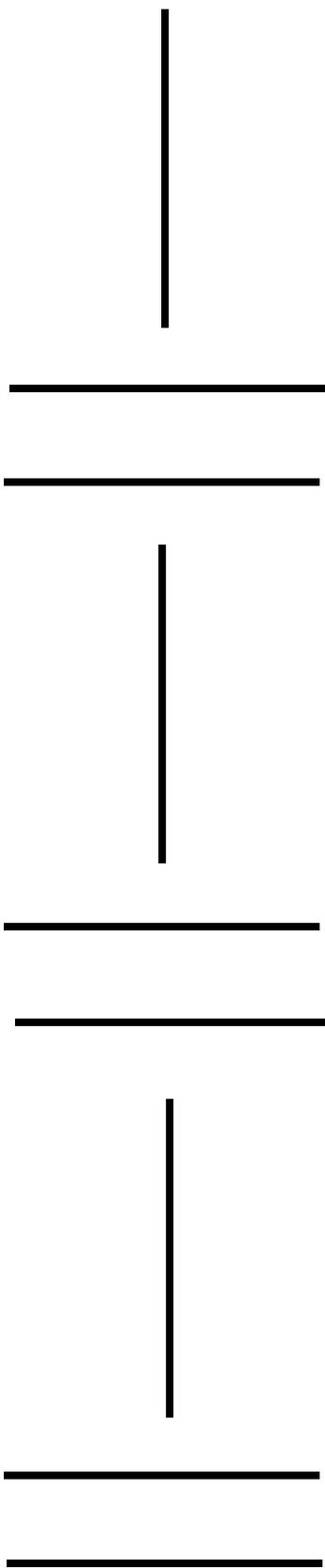
Pattern Strips: Level 1 Straws



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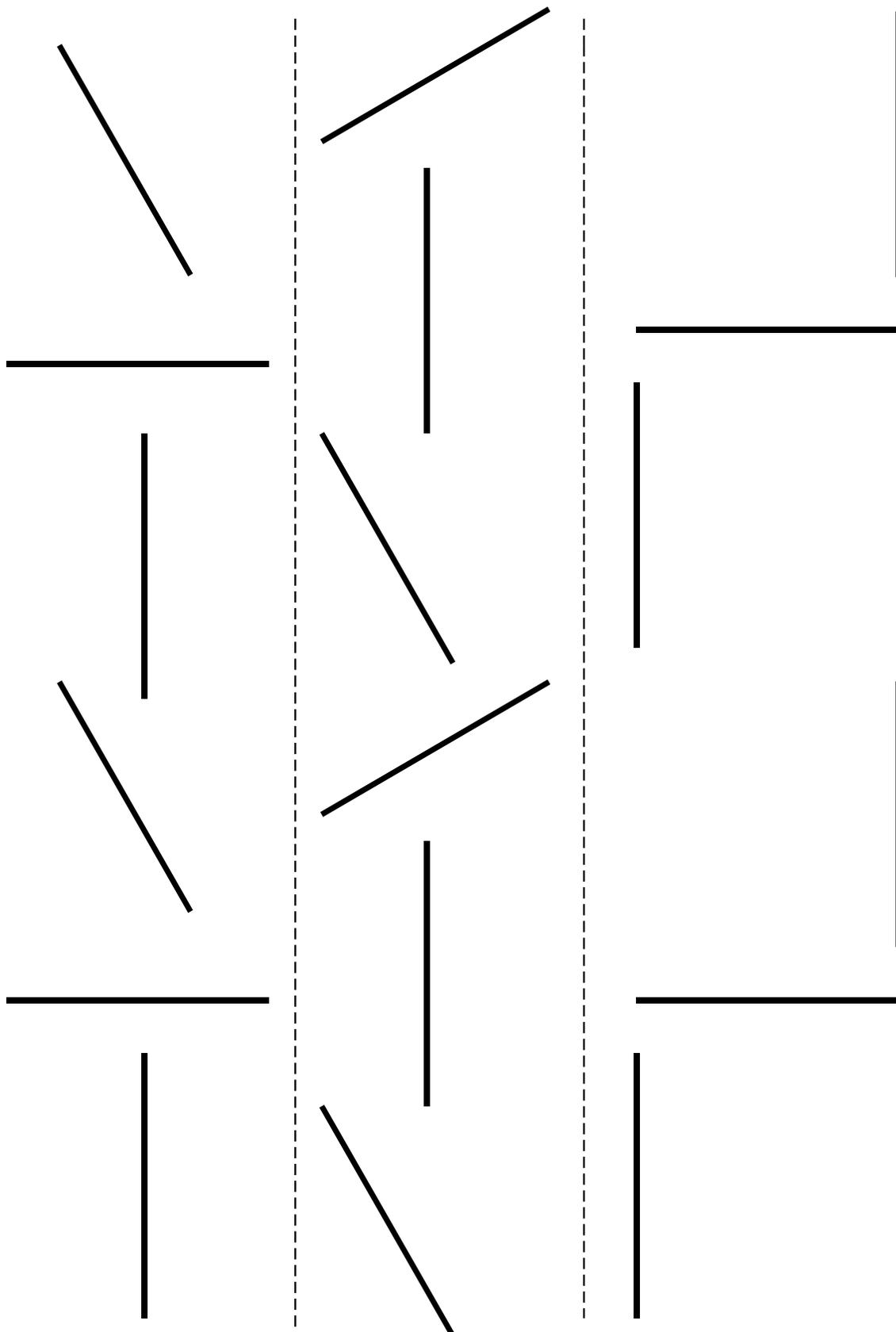


Pattern Strips: Level 2 Straws





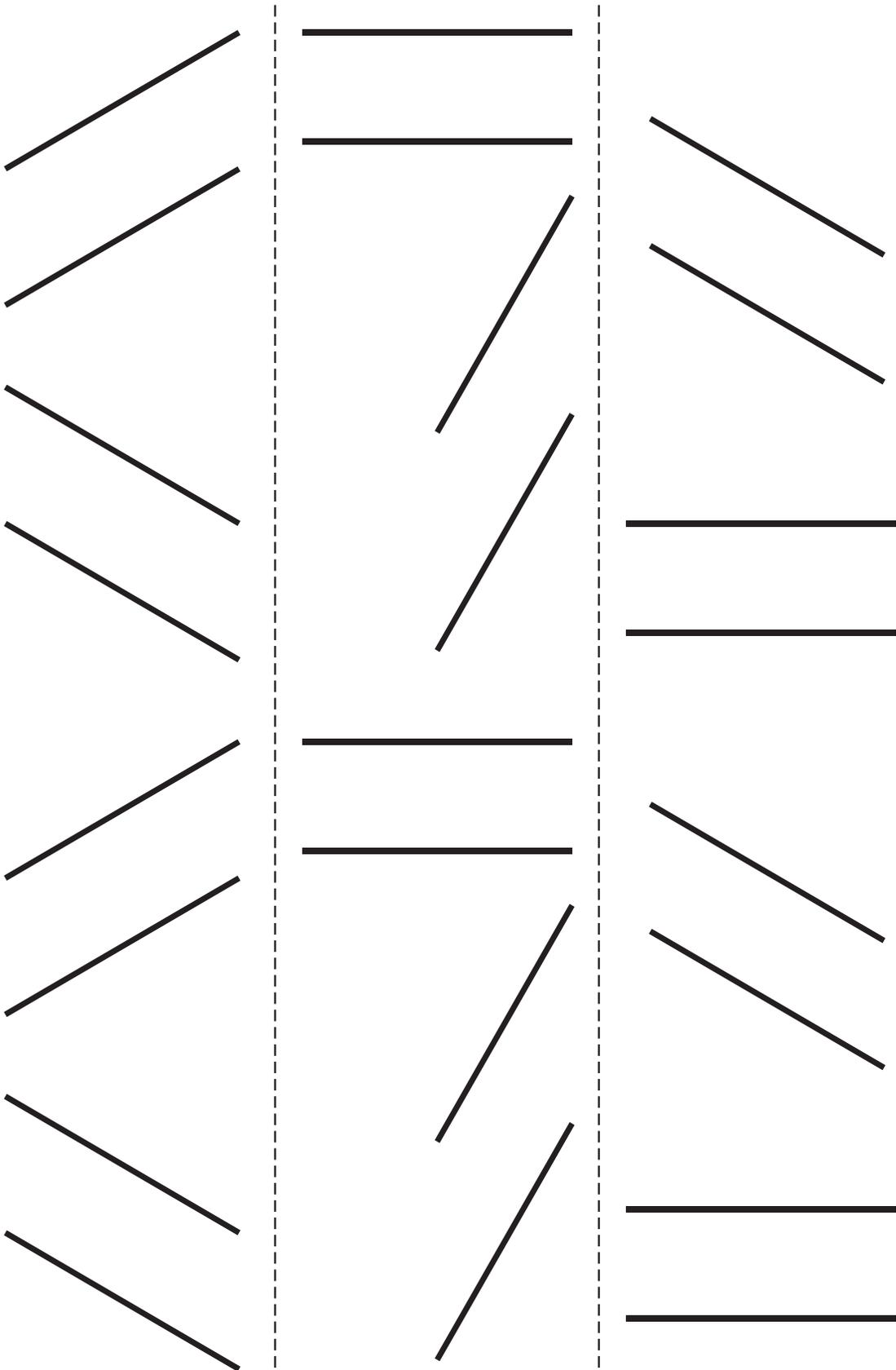
Pattern Strips: Level 4 Straws



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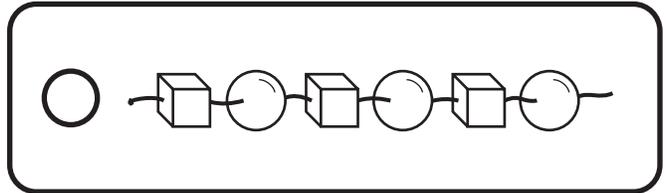
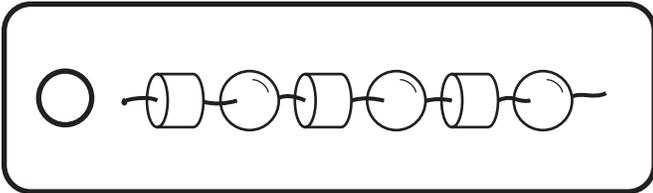
Pattern Strips: Level 5 Straws



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Pattern Tags

AB pattern



AAB pattern

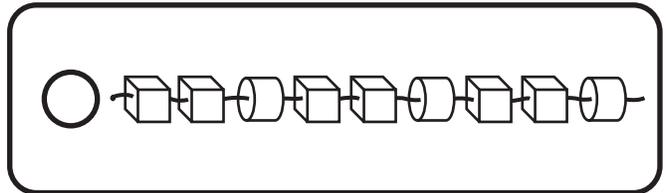
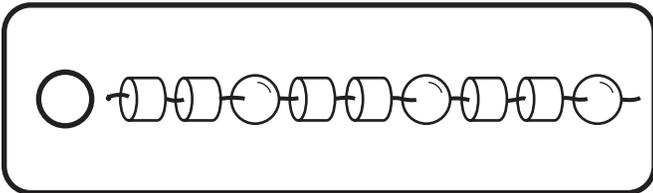
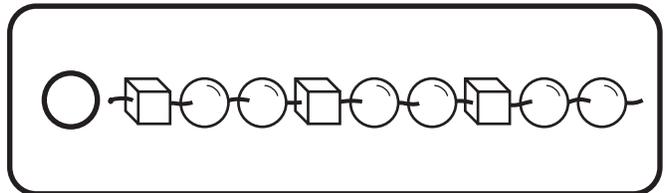
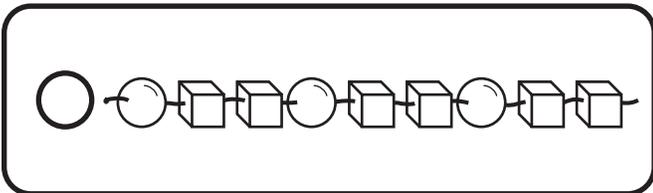
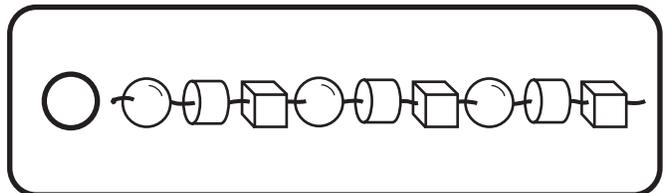
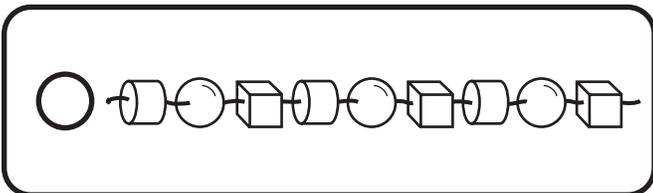


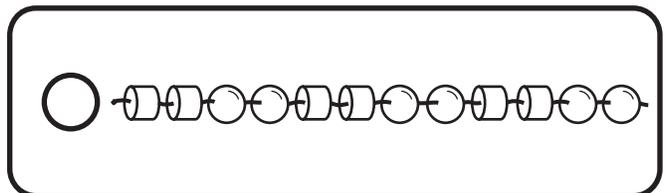
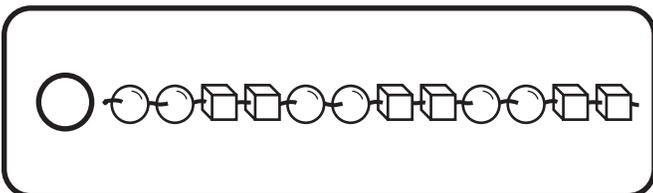
ABB pattern



ABC pattern



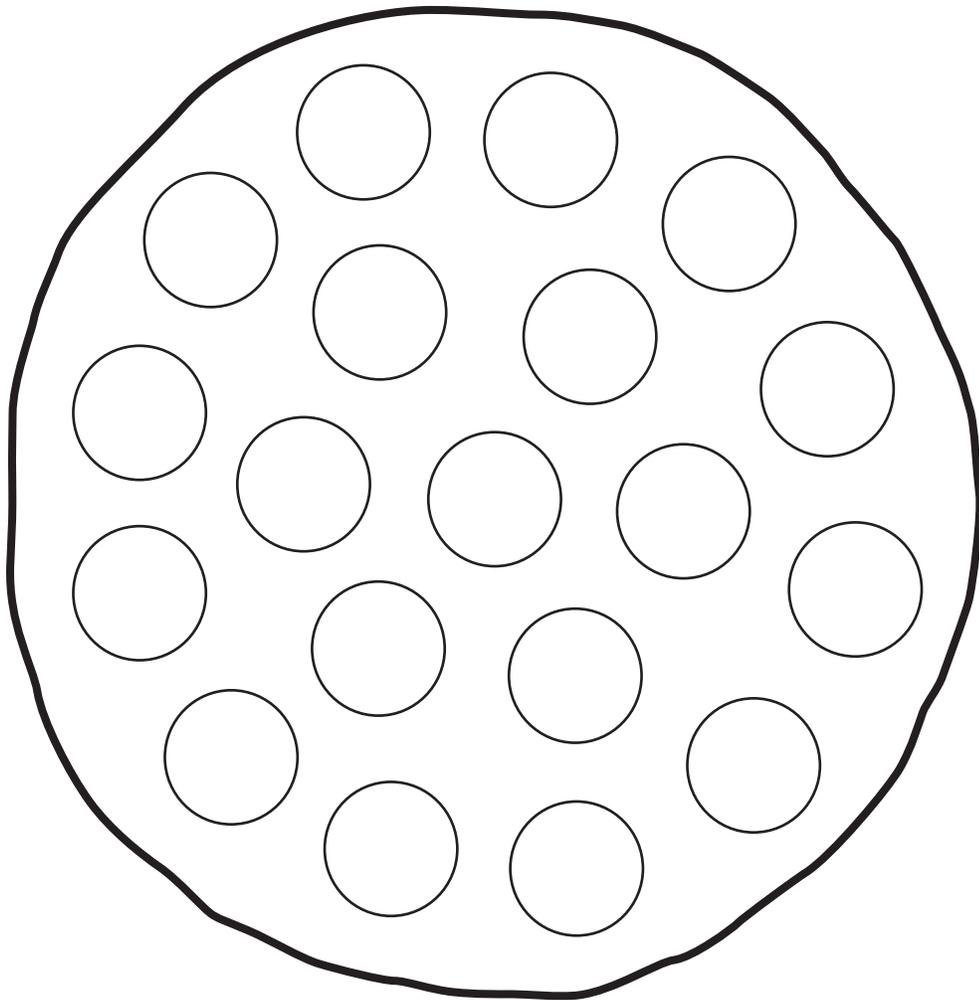
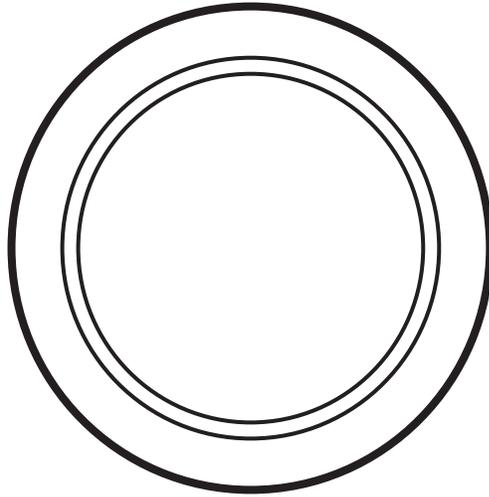
AABB pattern



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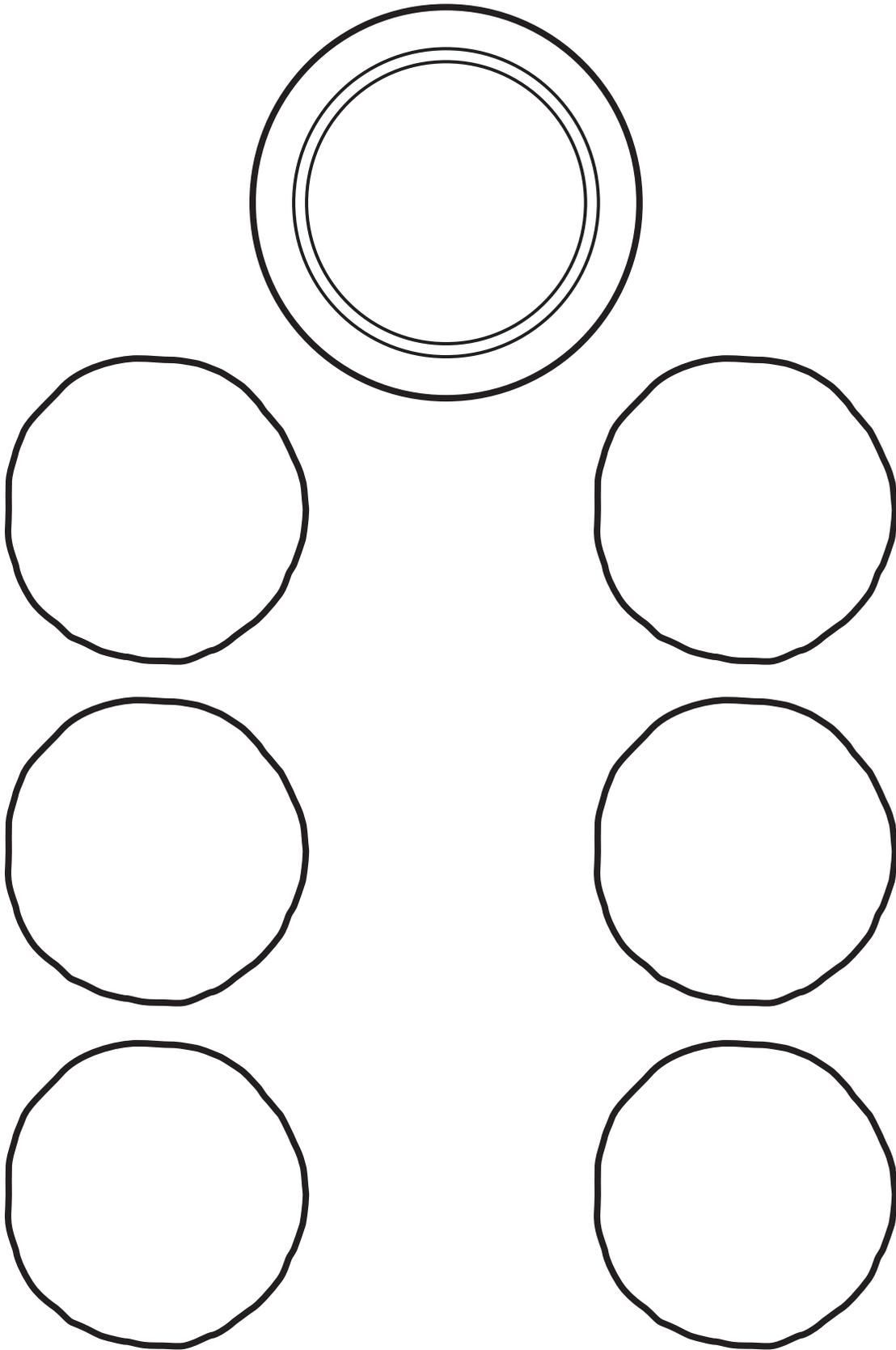
Pizza Game 1



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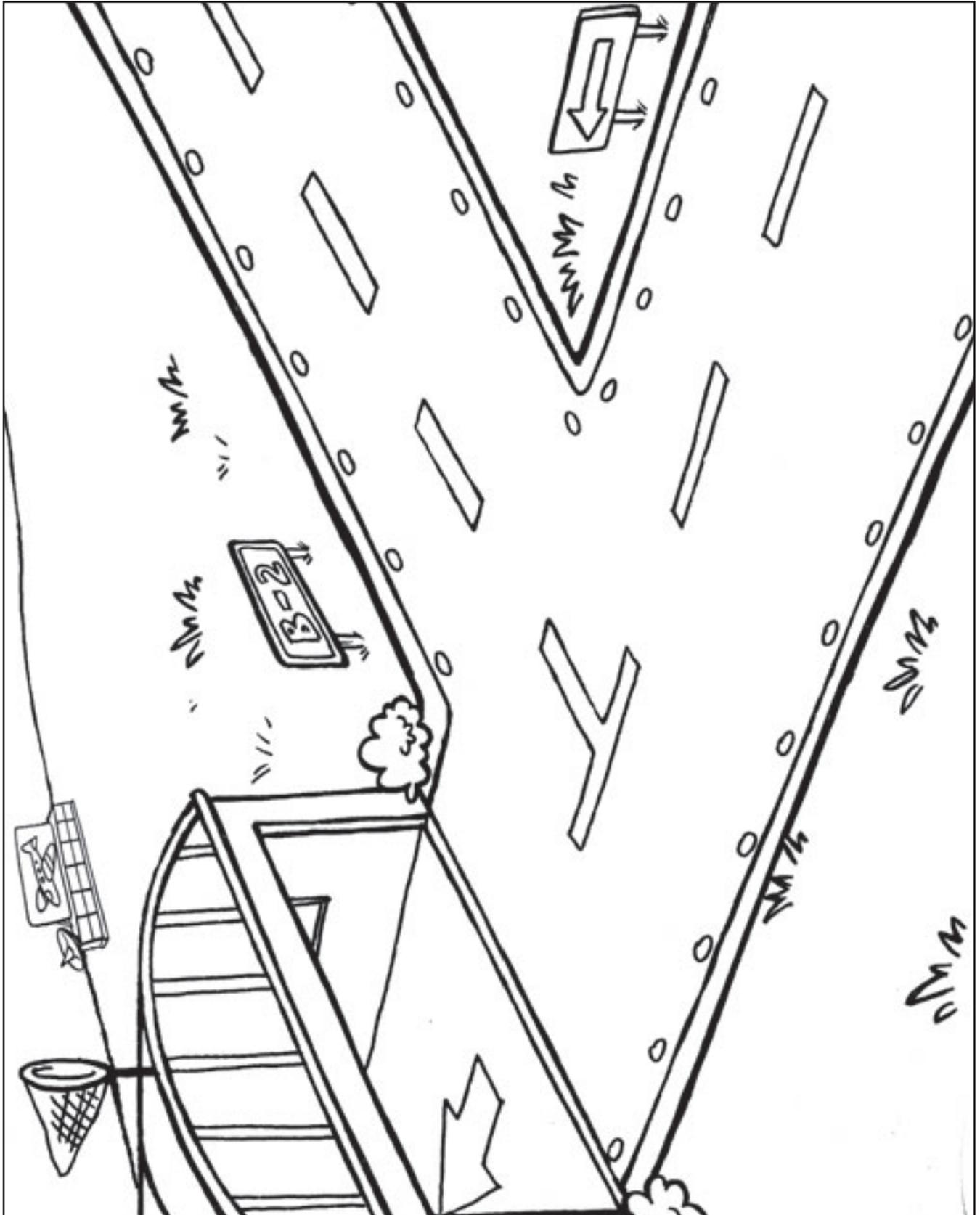
Pizza Game 2



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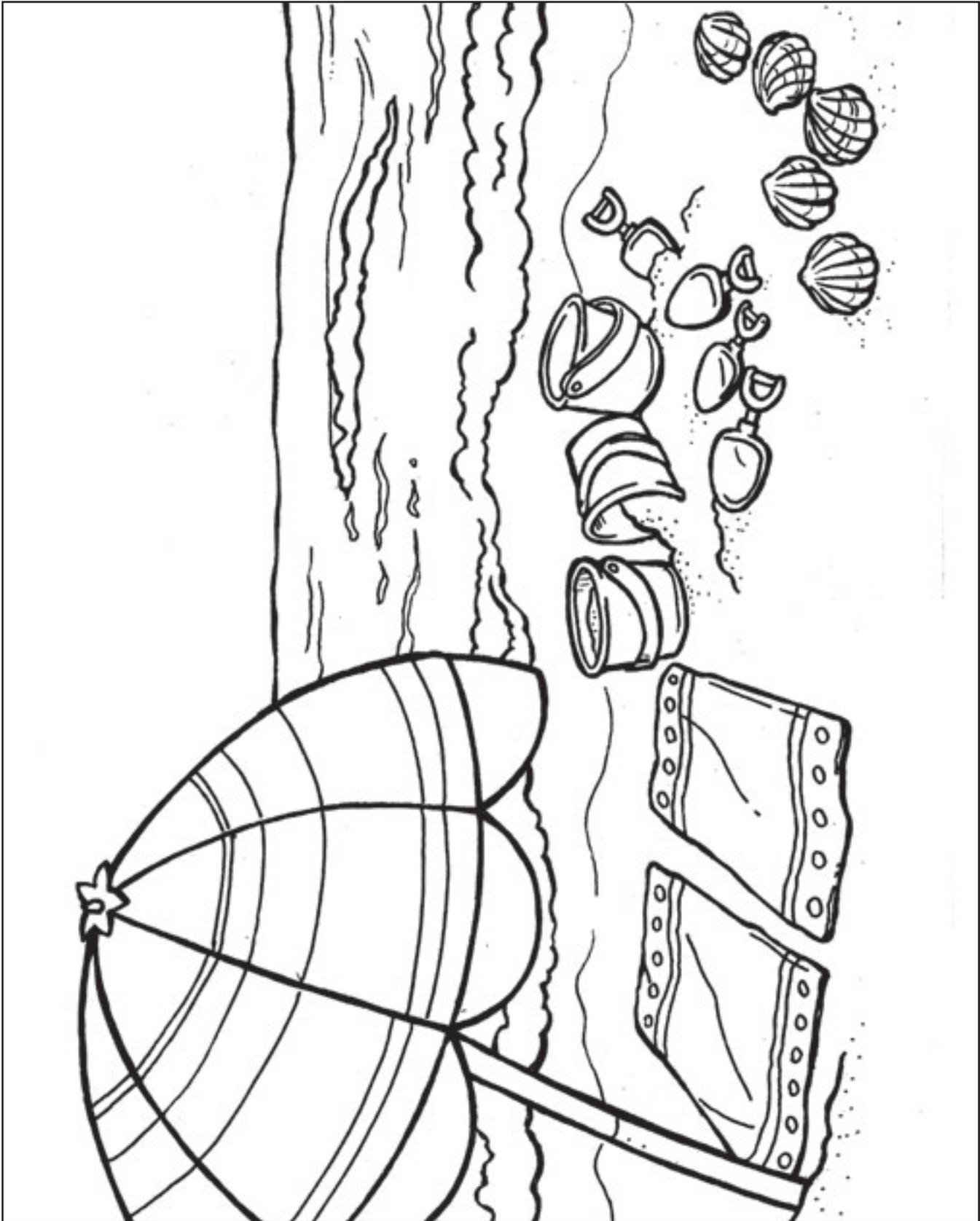
Places Scene: Airport



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Places Scene: Beach



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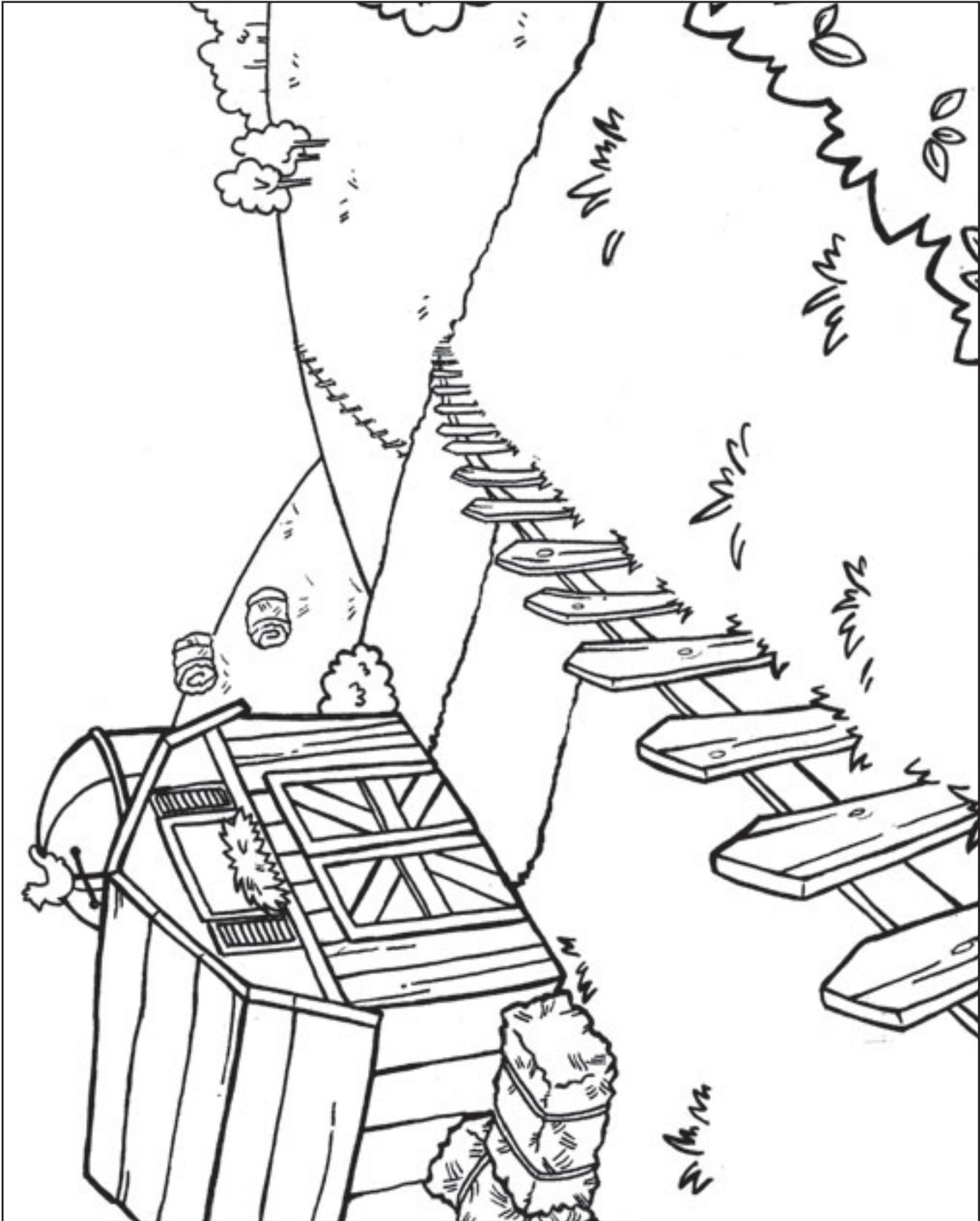
Places Scene: Dinosaur



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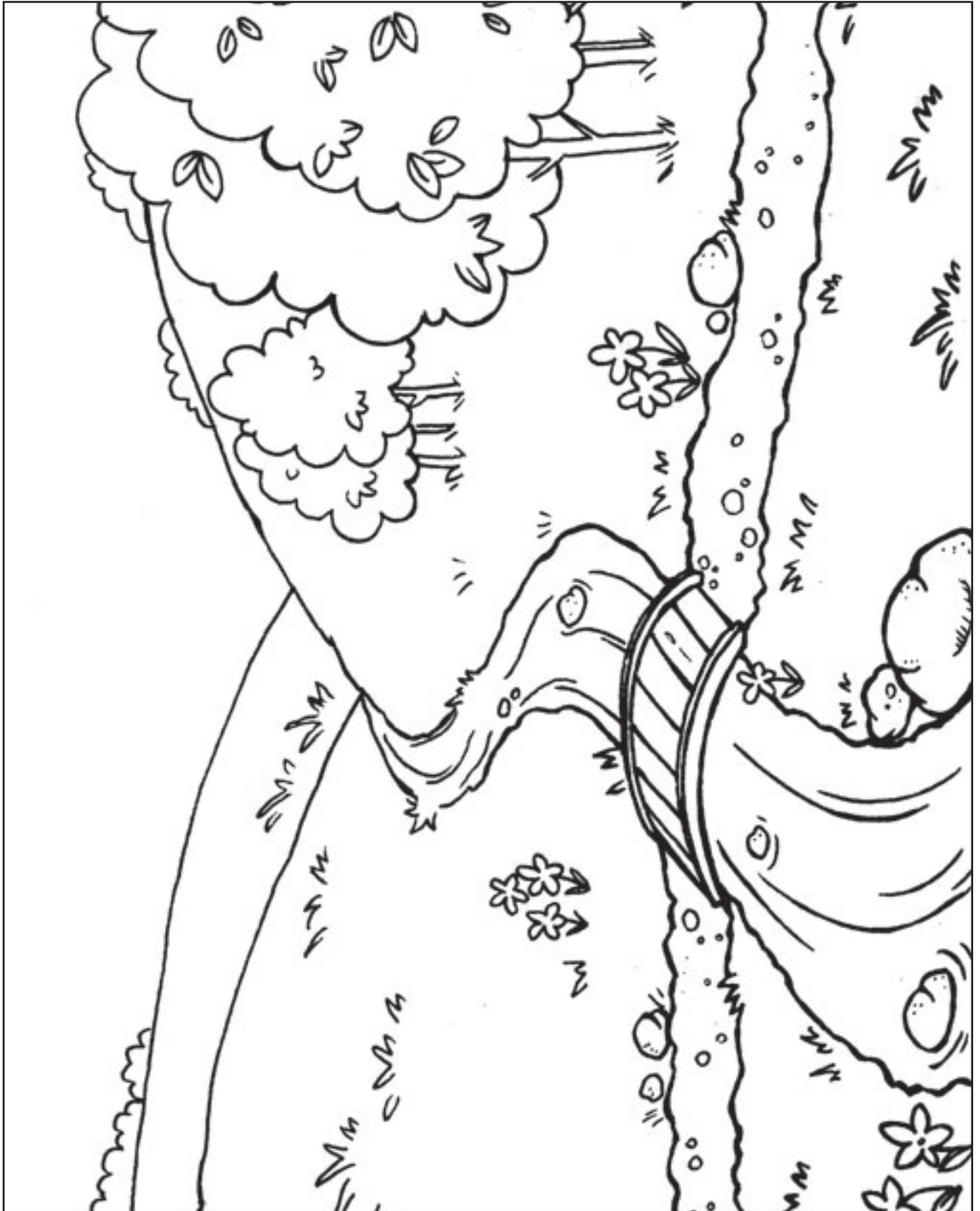
Places Scene: Farm



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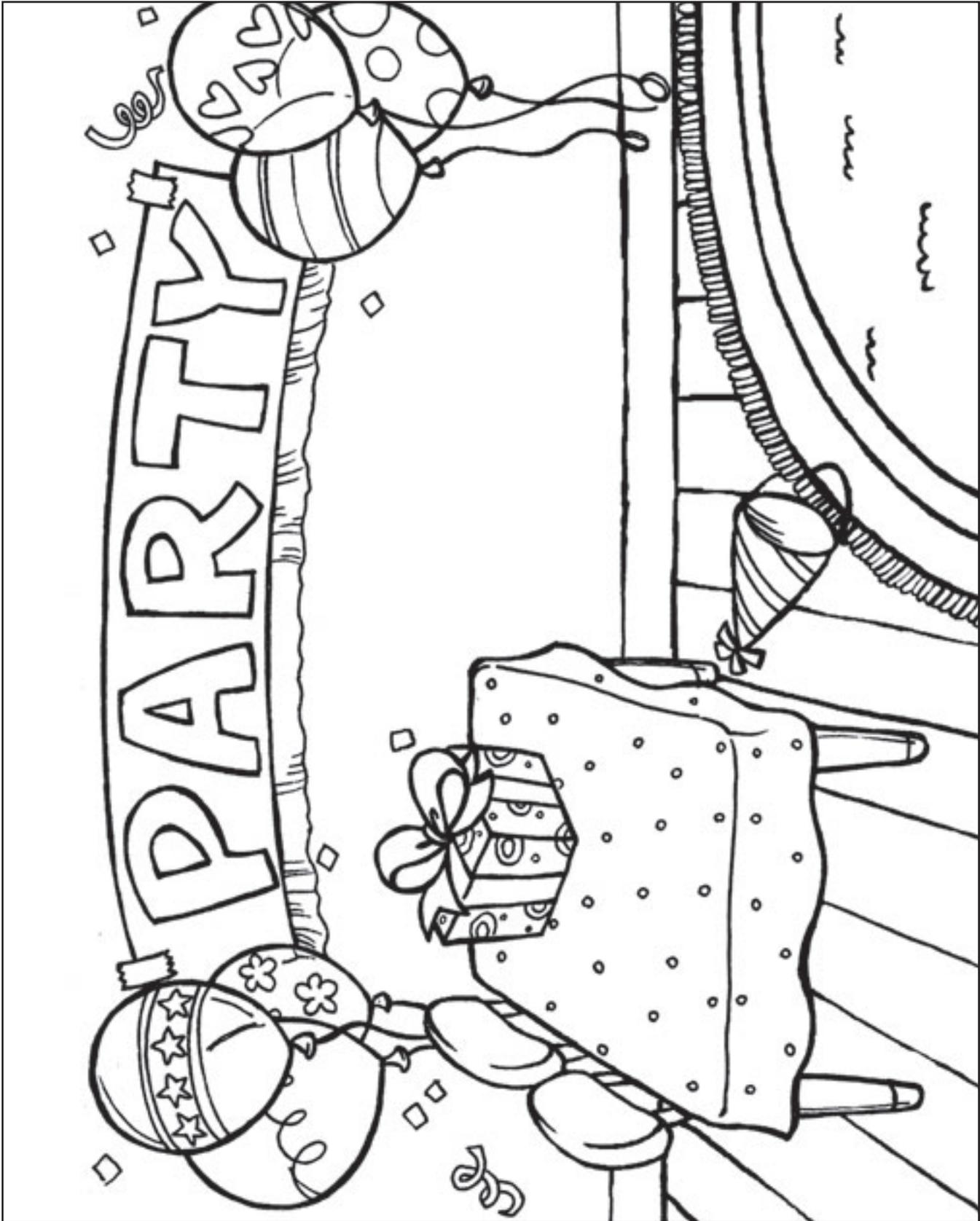
Places Scene: Nature



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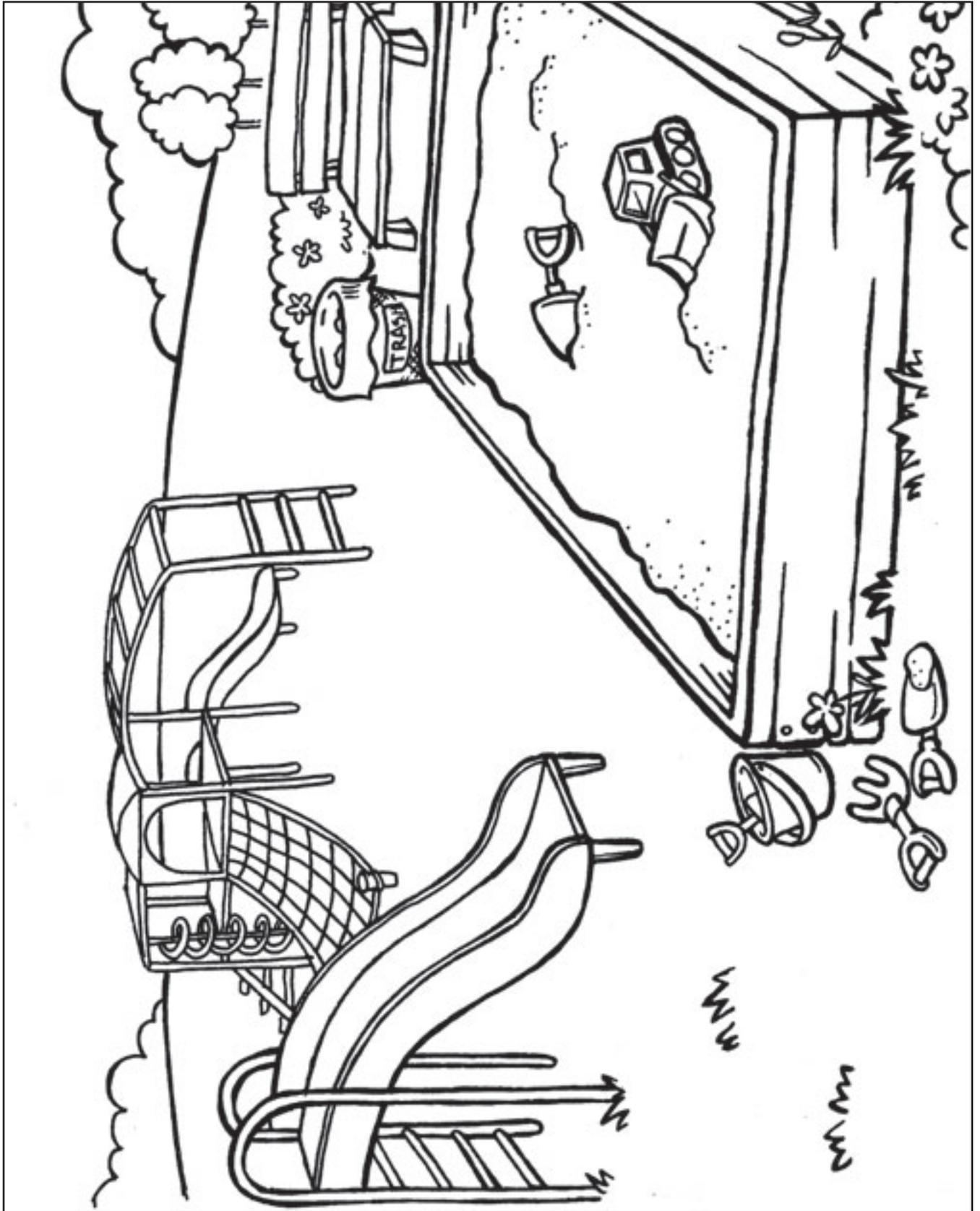
Places Scene: Party



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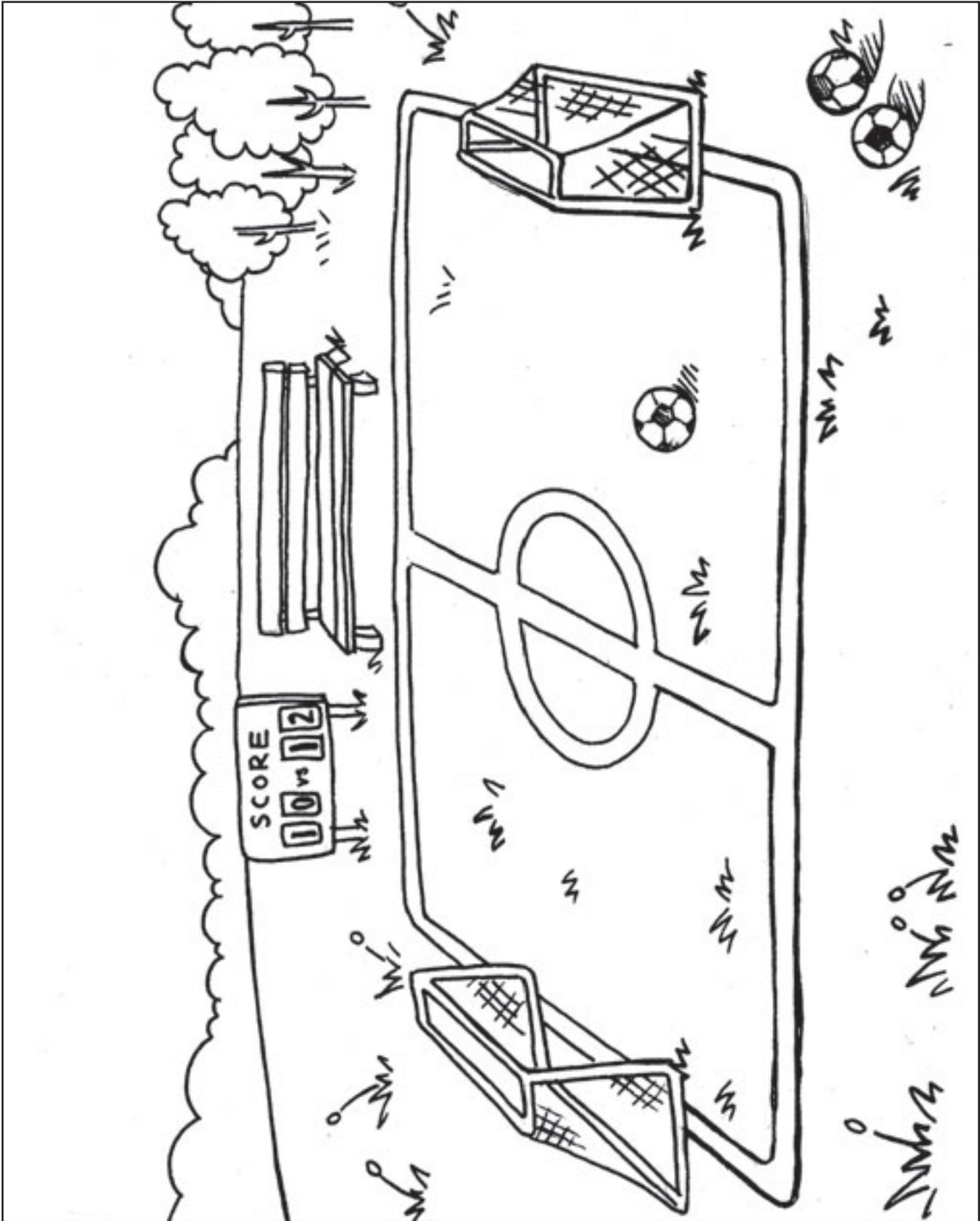
Places Scene: Playground



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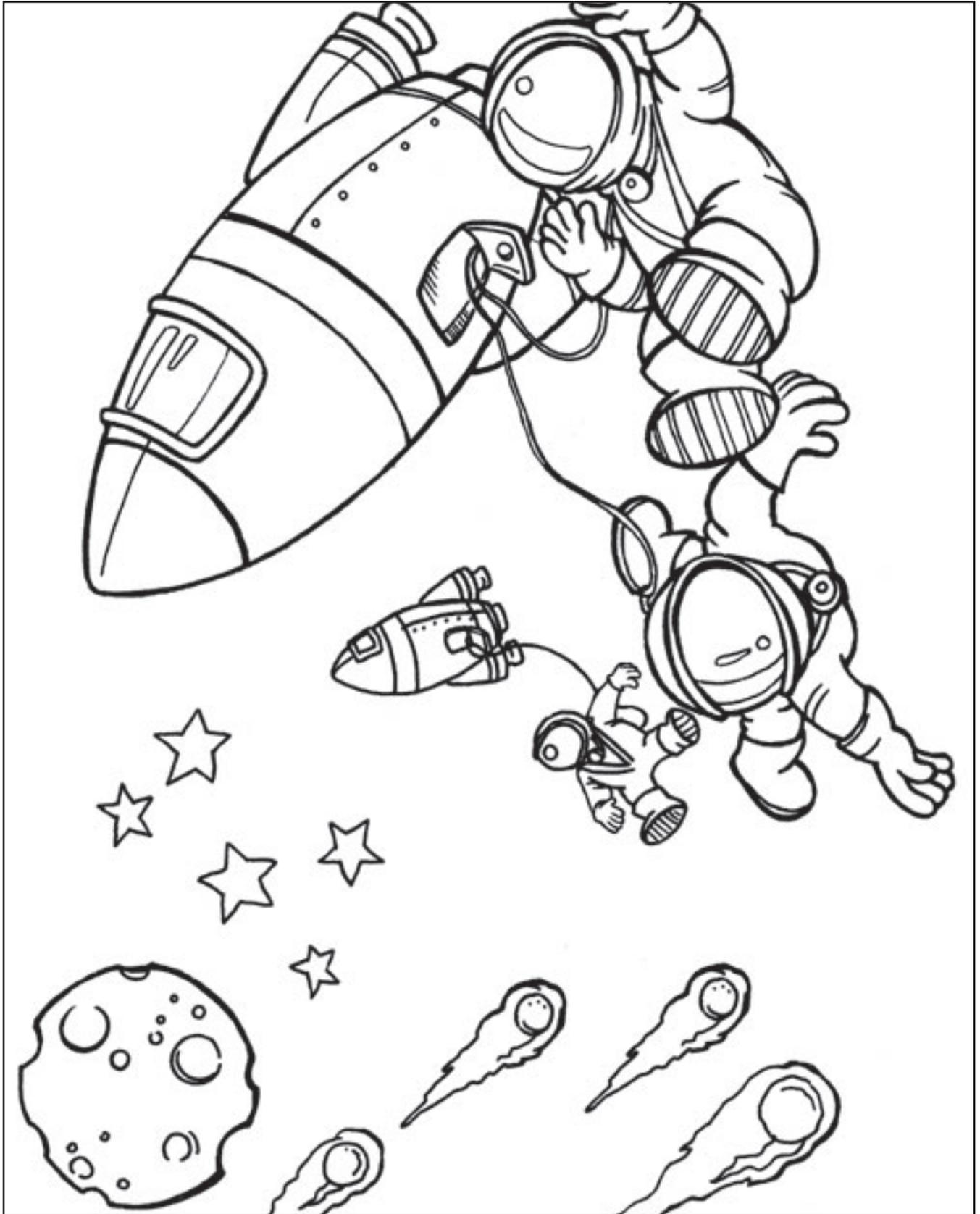
Places Scene: Soccer



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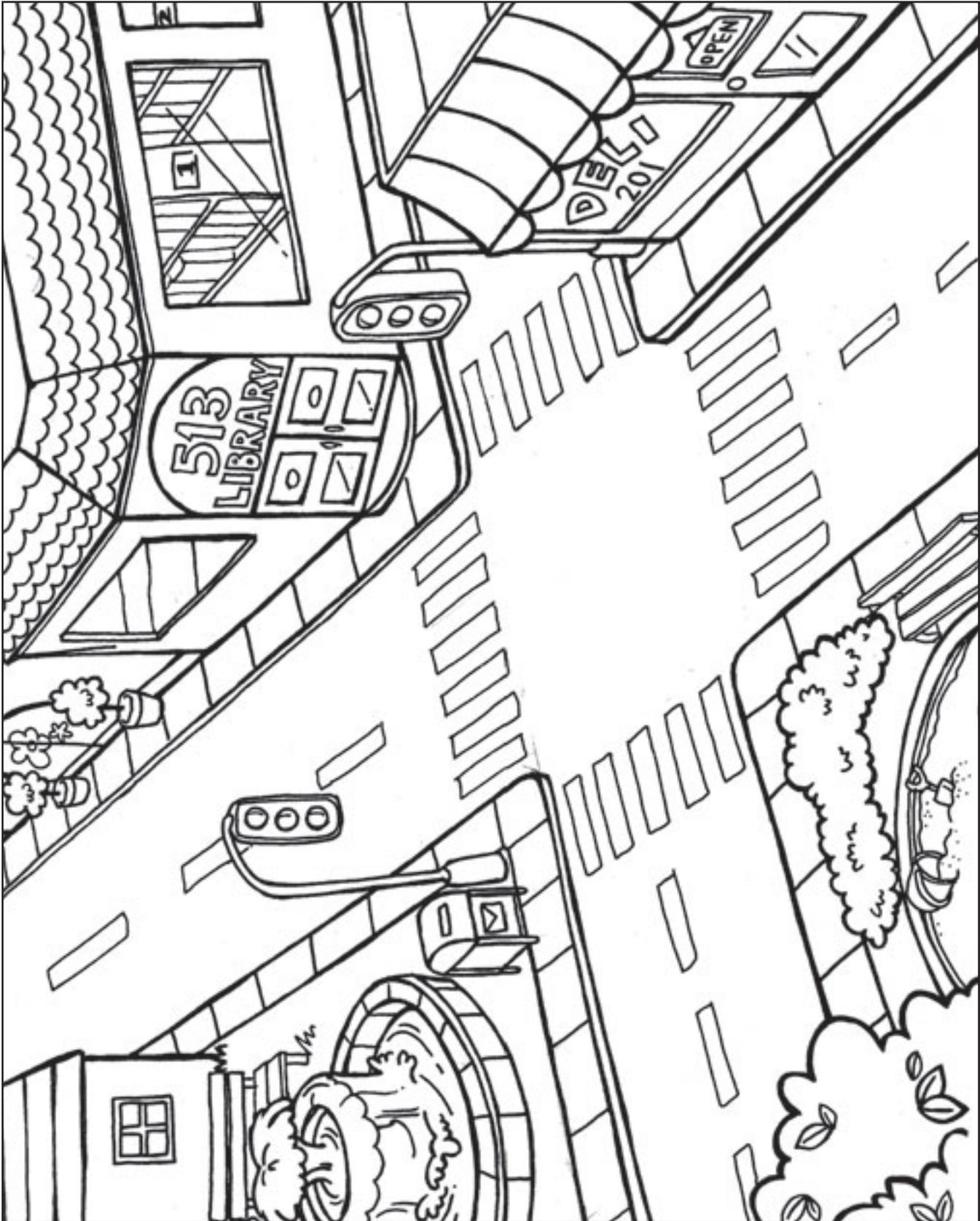
Places Scene: Space



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Places Scene: Street

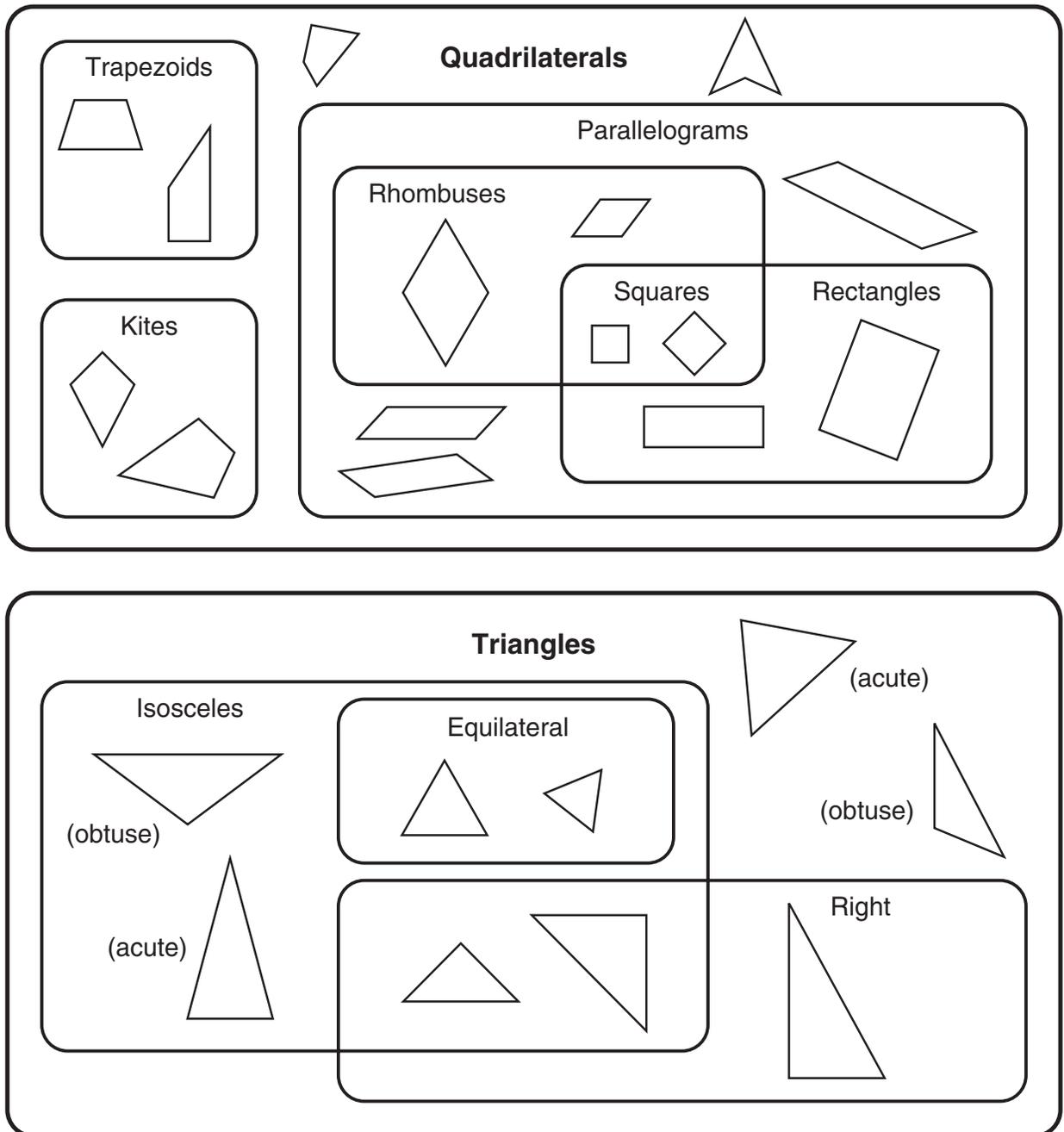


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Shape Sets: Hierarchies

There are big families of shapes that include smaller families, all related by their properties. Categories and names of shapes depend in which family you place them (for example, a dog belongs to a specific breed but also belongs to the canine family). In the “big family” of quadrilaterals (four-sided shapes), a smaller family is parallelograms (two pairs of opposite, equal-length sides) and even smaller families are rectangles (characterized by all right angles) and rhombuses (additionally, all sides the same length). Therefore, when in both the rectangle and rhombus families, that becomes the smallest family—squares. As the diagrams show, this also applies to triangles.

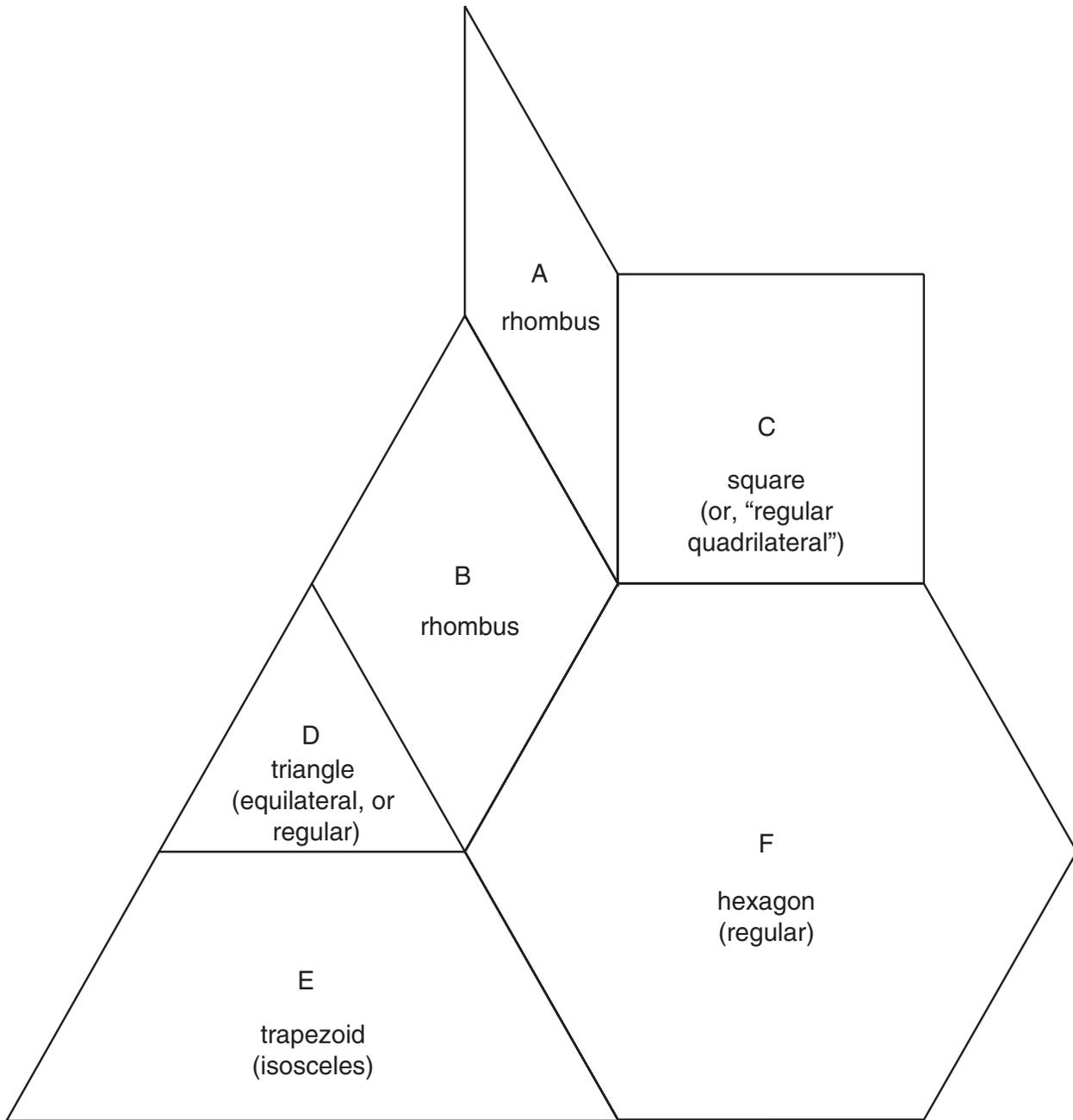


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Shape Sets: Pattern Blocks

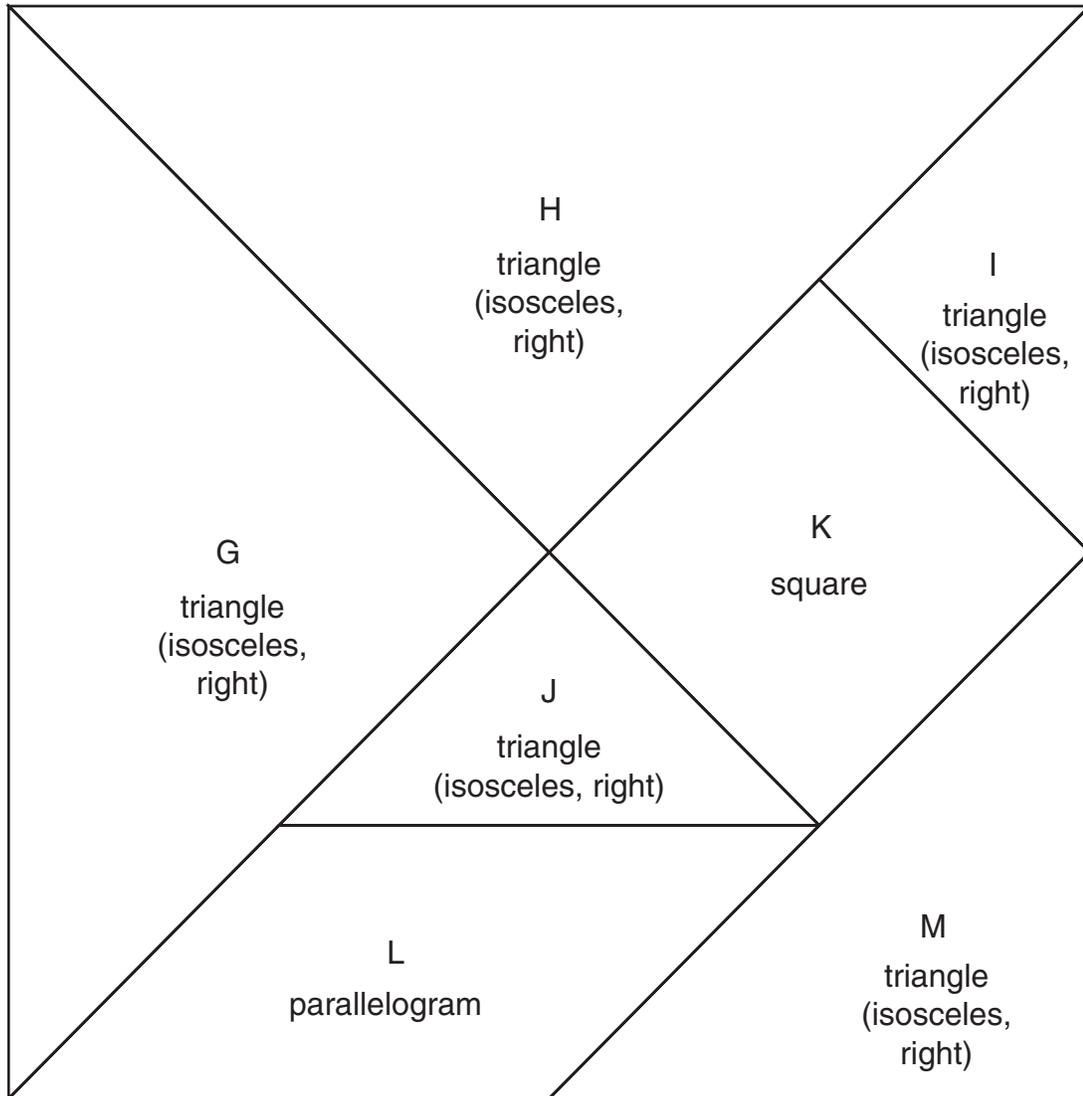
Shape Sets, two of which are in the manipulative kit, are wonderful combinations of various shape relationships. Shape names and labels are provided on this page and, as applicable, on pages 175–176. Here are the steps if you want to make additional sets: make two copies of each Shape Set; glue the copies to foam board, or similar material, using two colors (one for each set); and carefully cut out the shapes.



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Shape Set

Tangrams

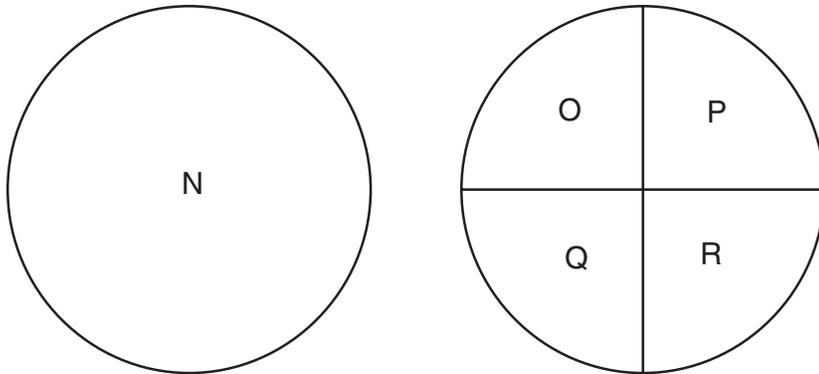


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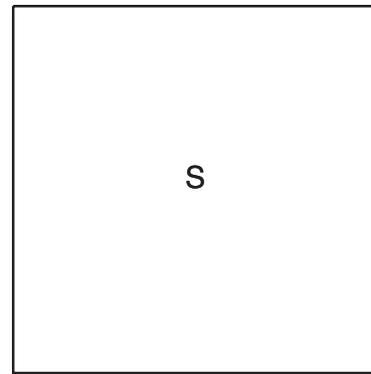


Shape Sets: Other Shapes

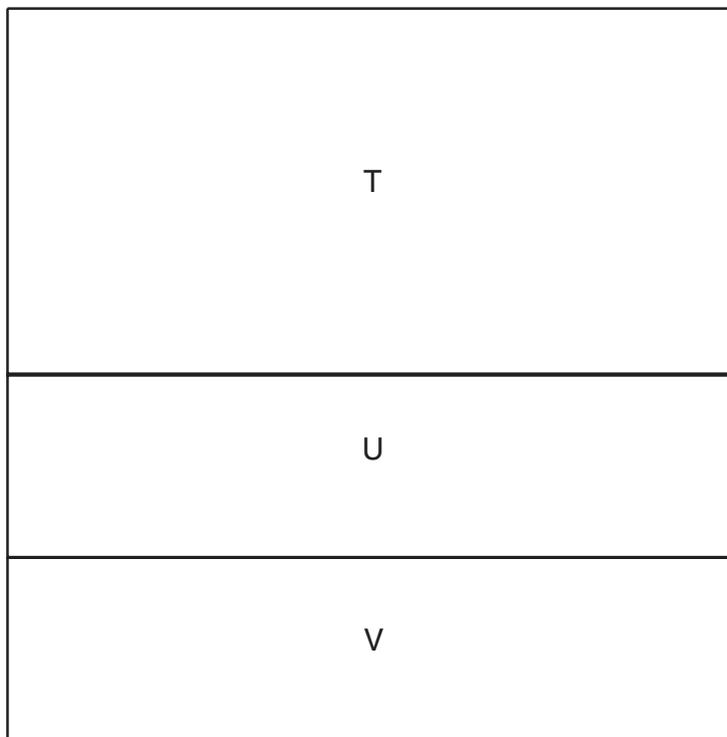
Circles and Sections



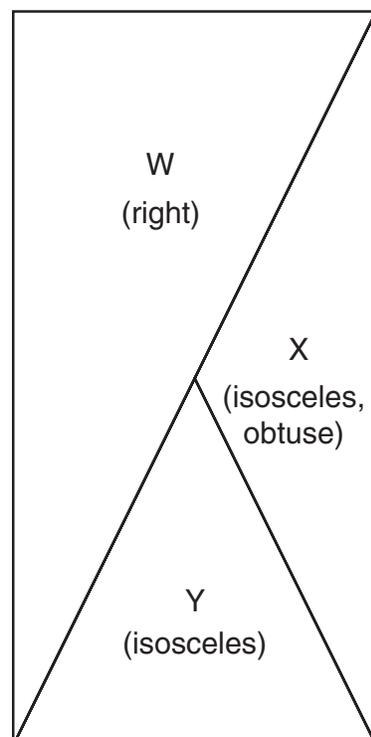
Square



Rectangles



Triangles

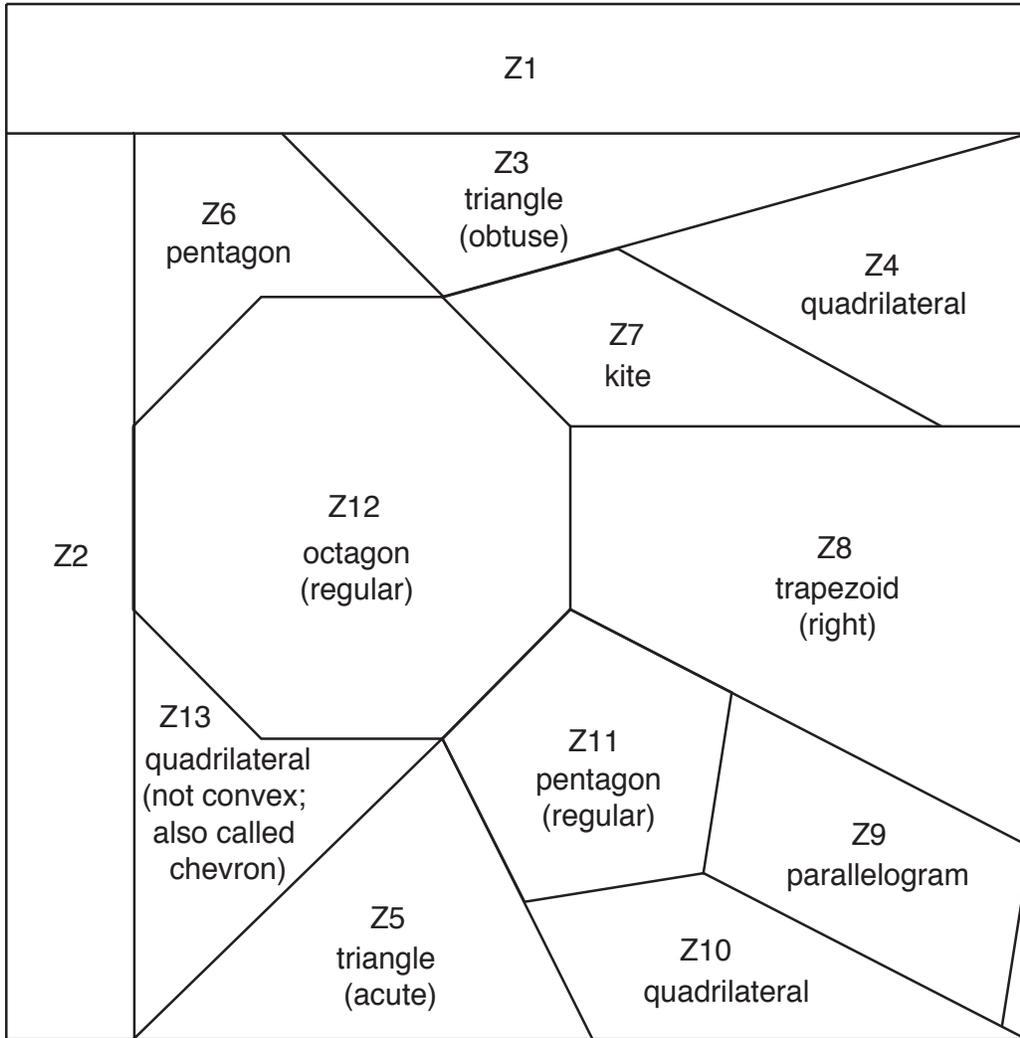


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Shape Set

Other Shapes

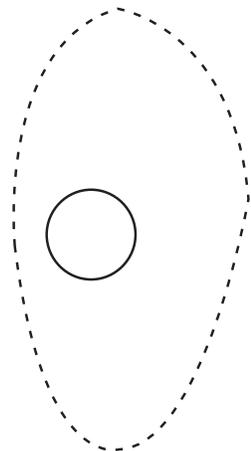
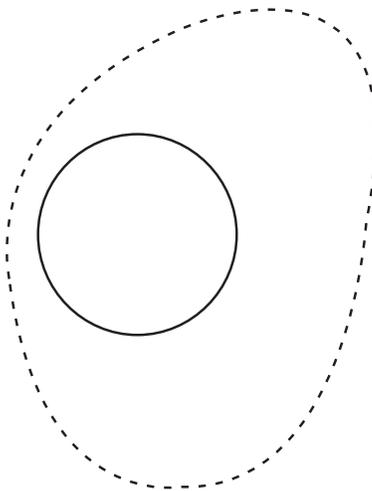
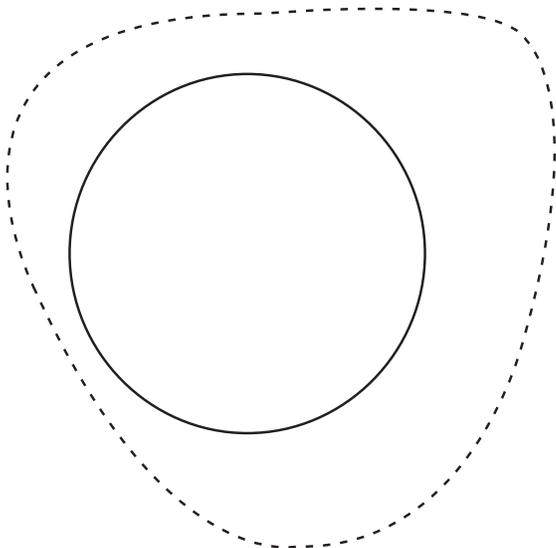
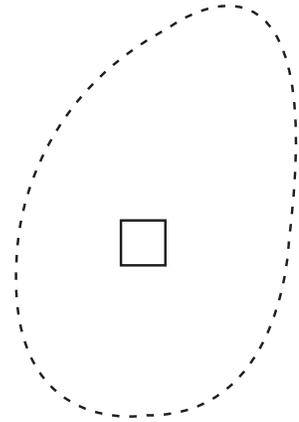
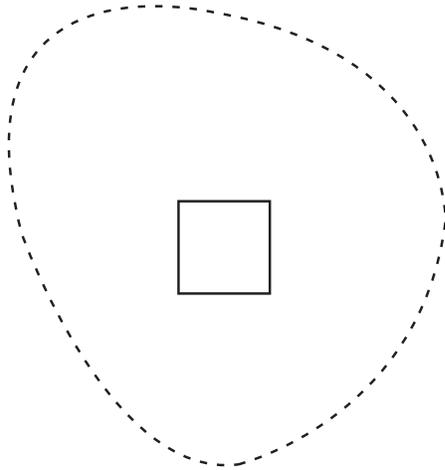
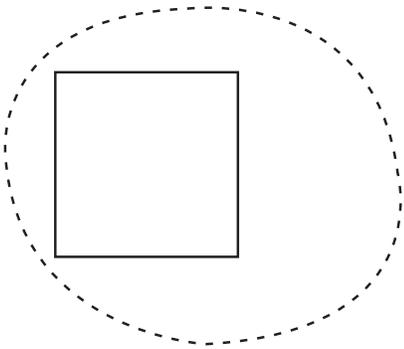
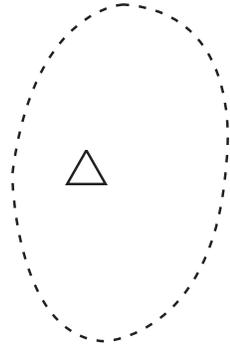
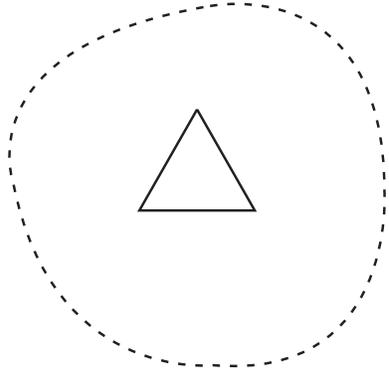
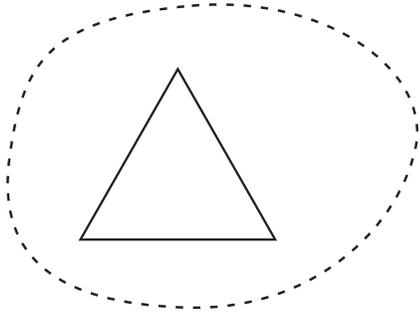


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Straws



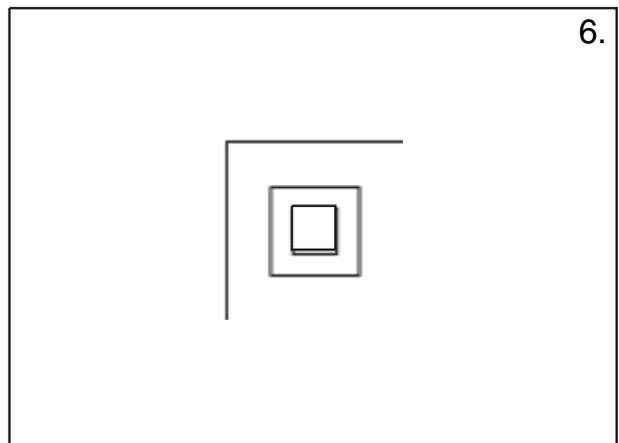
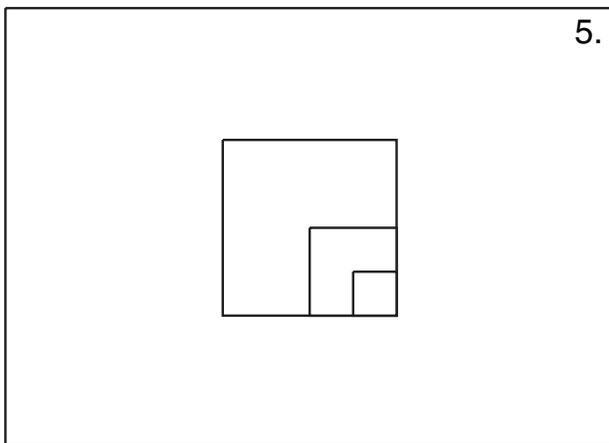
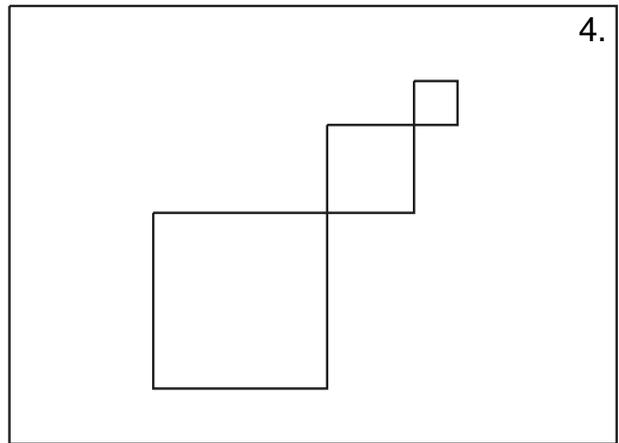
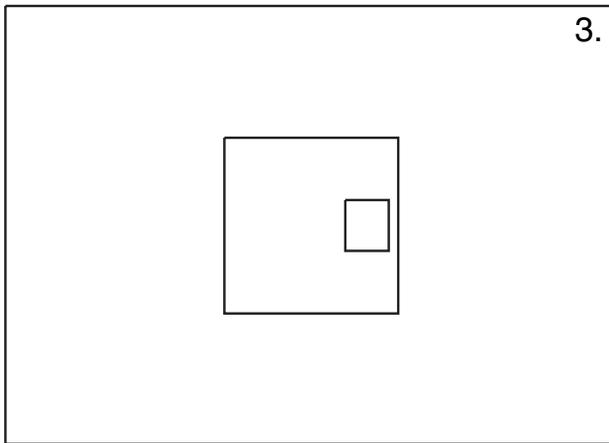
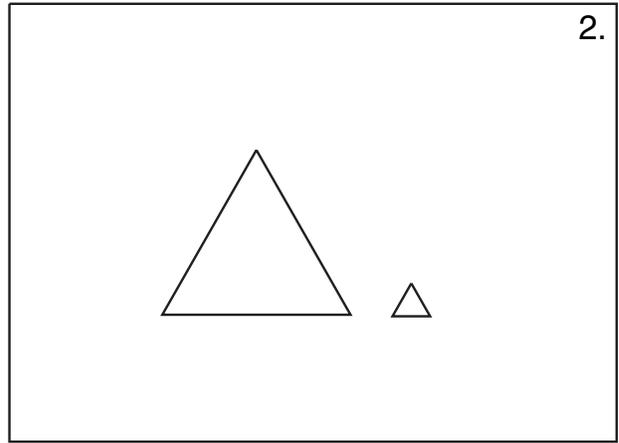
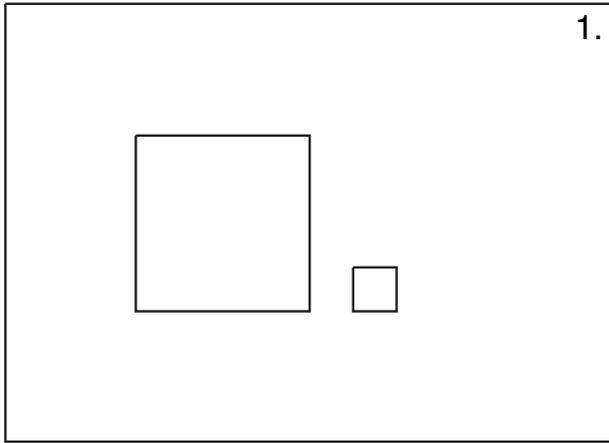
Shape Transparencies



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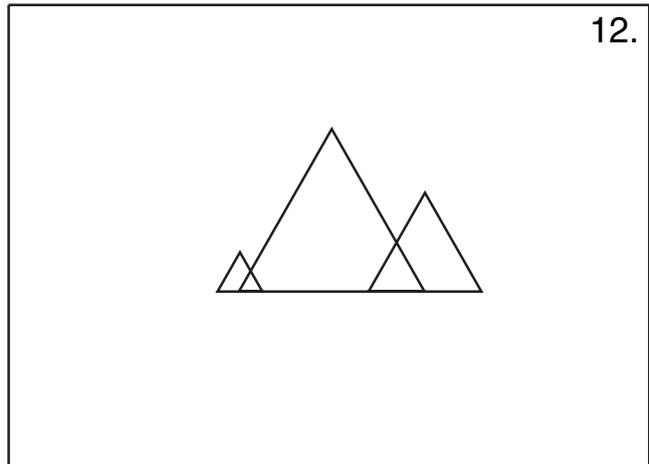
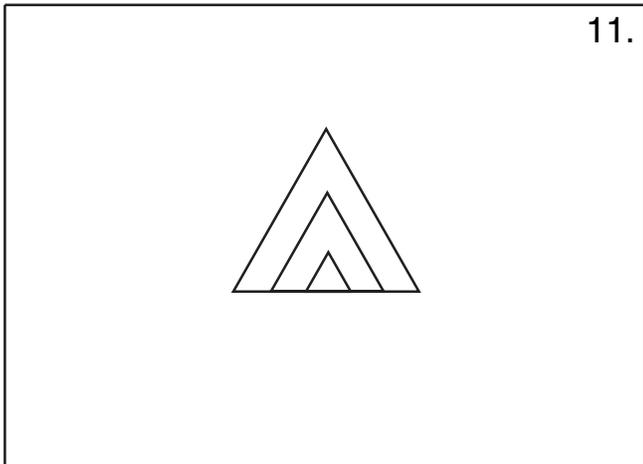
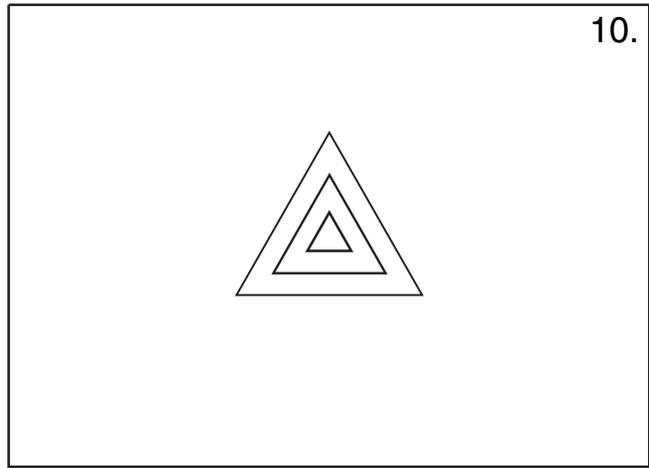
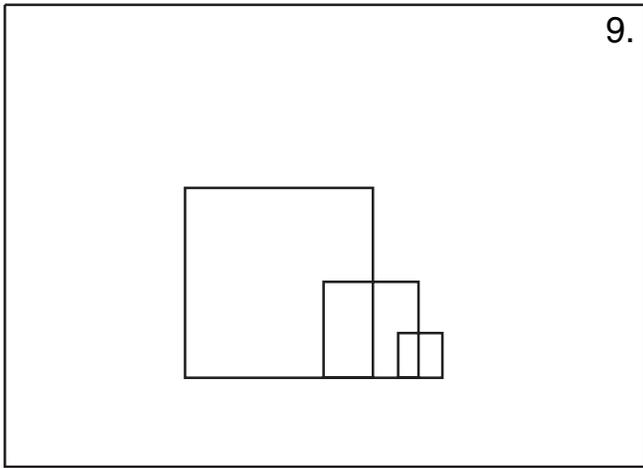
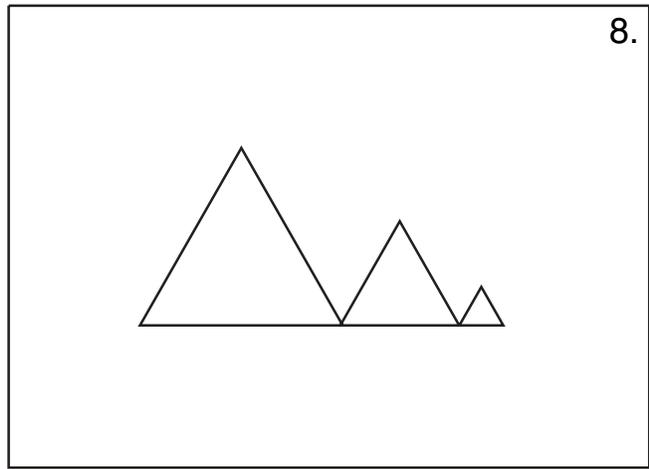
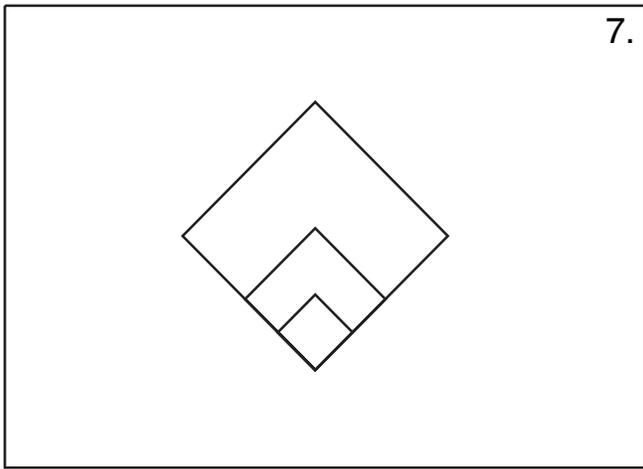
Designs for Shape Transparencies



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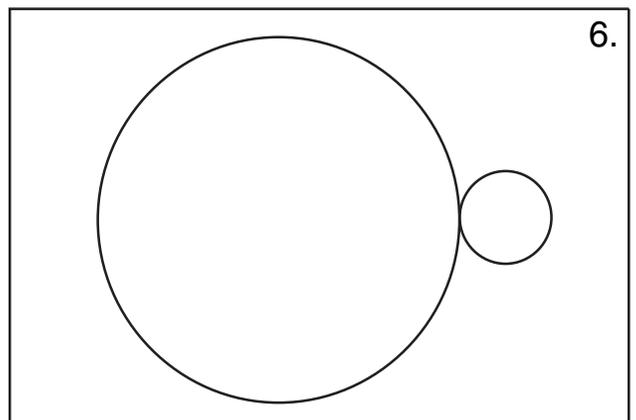
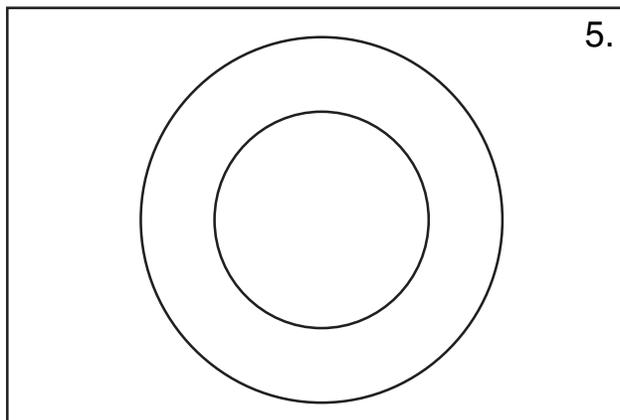
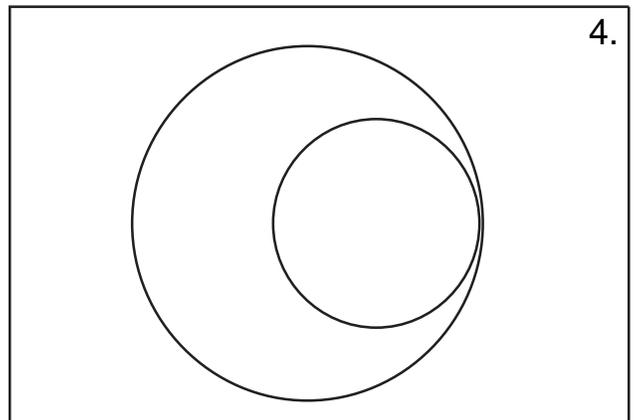
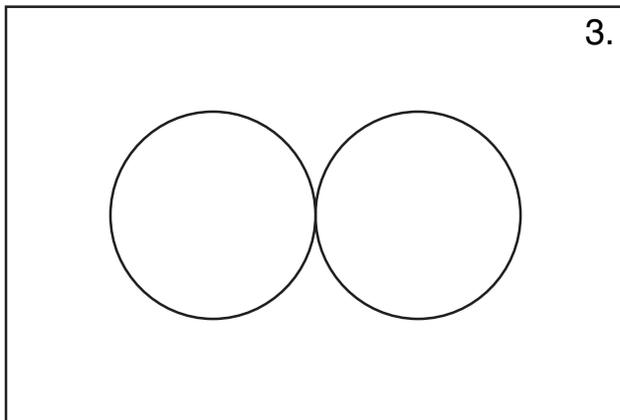
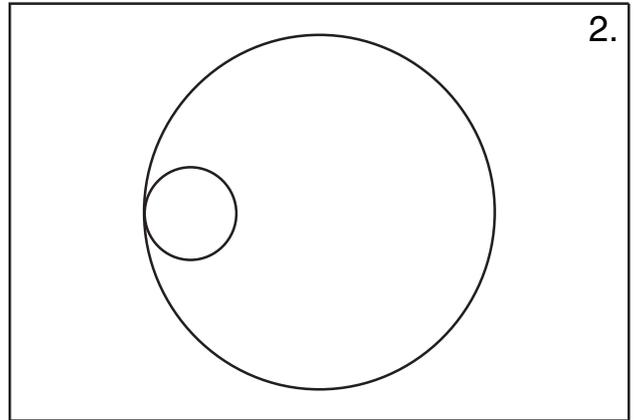
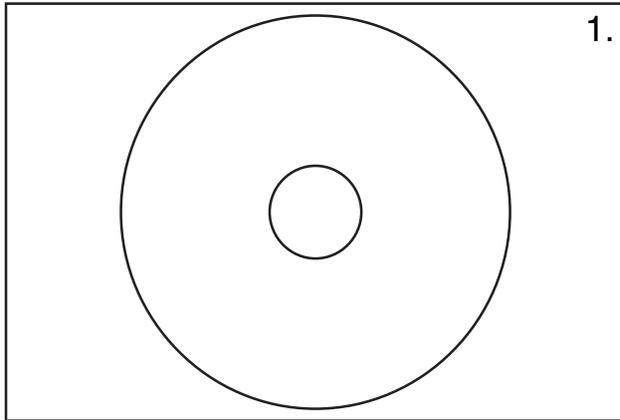
Designs for Shape Transparencies



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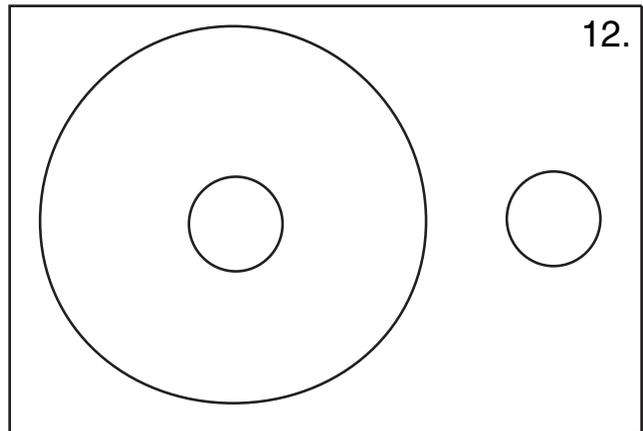
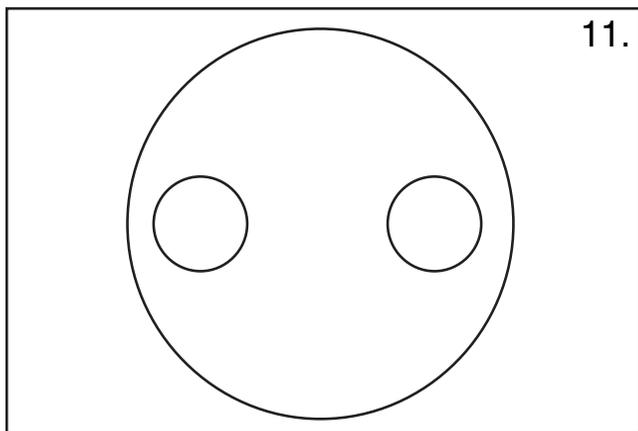
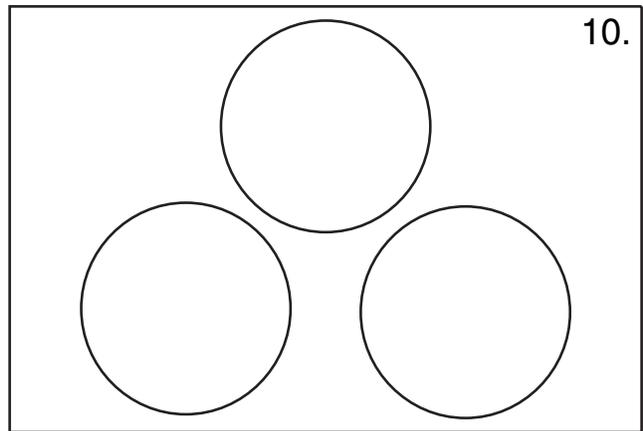
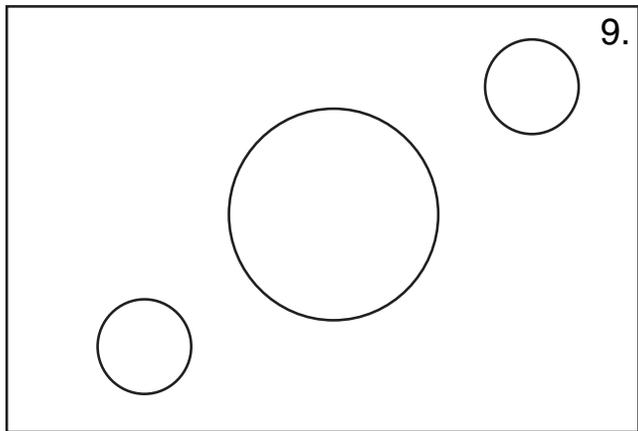
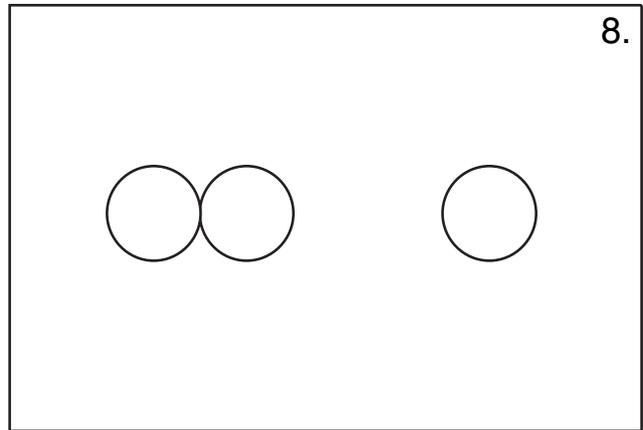
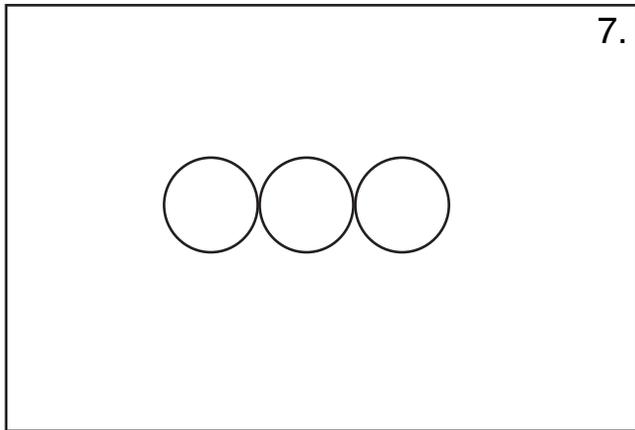
Designs for Shape Transparencies



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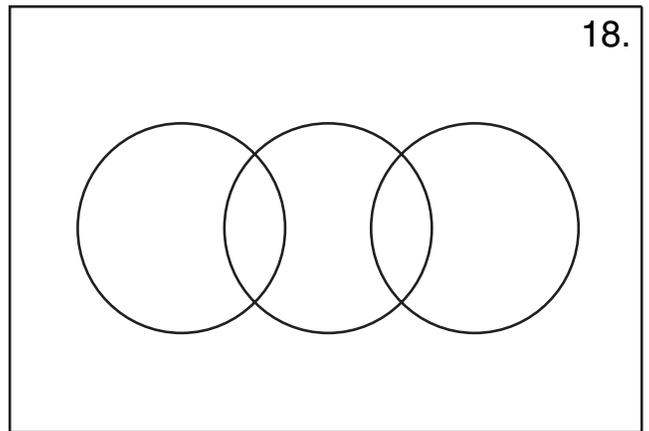
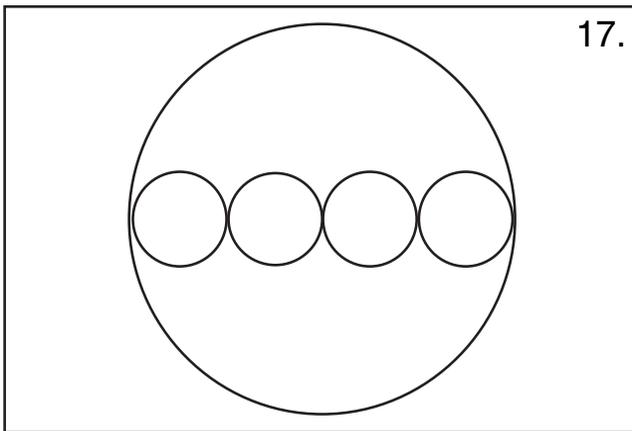
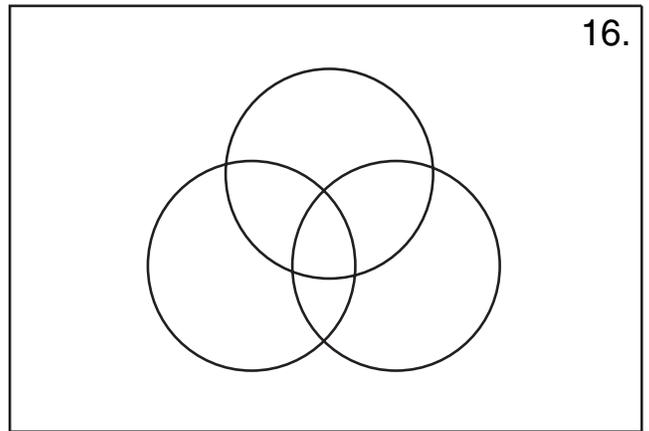
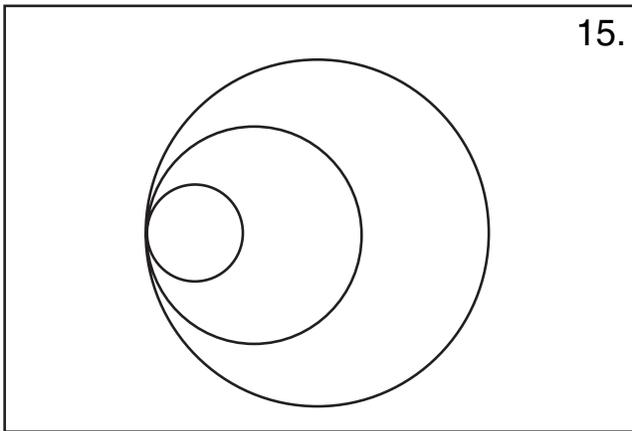
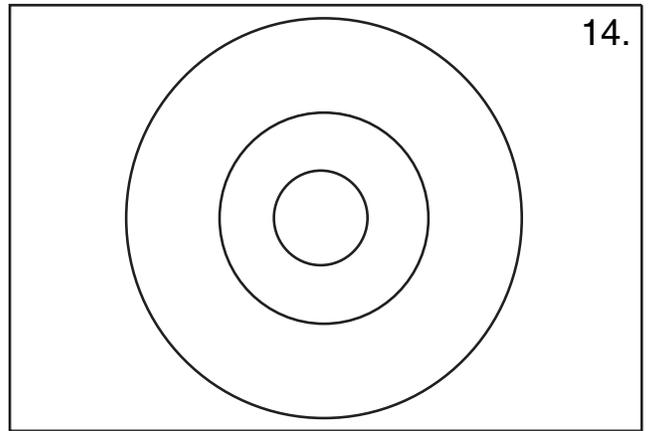
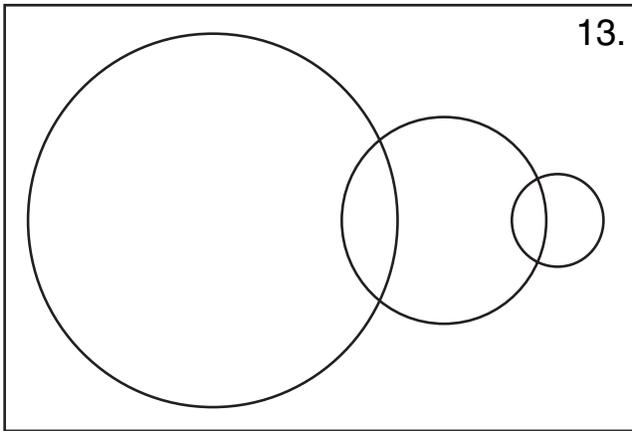
Designs for Shape Transparencies



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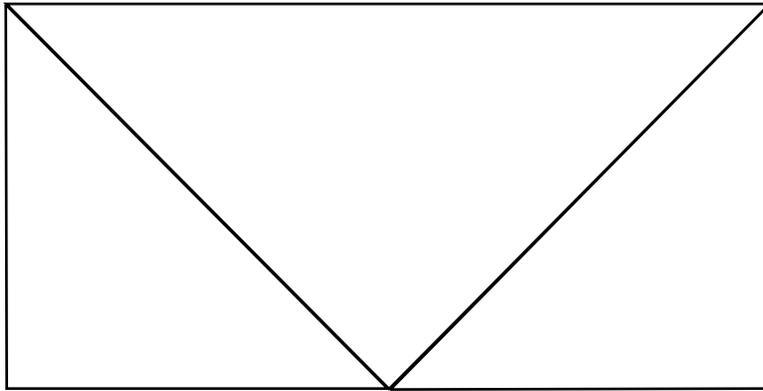


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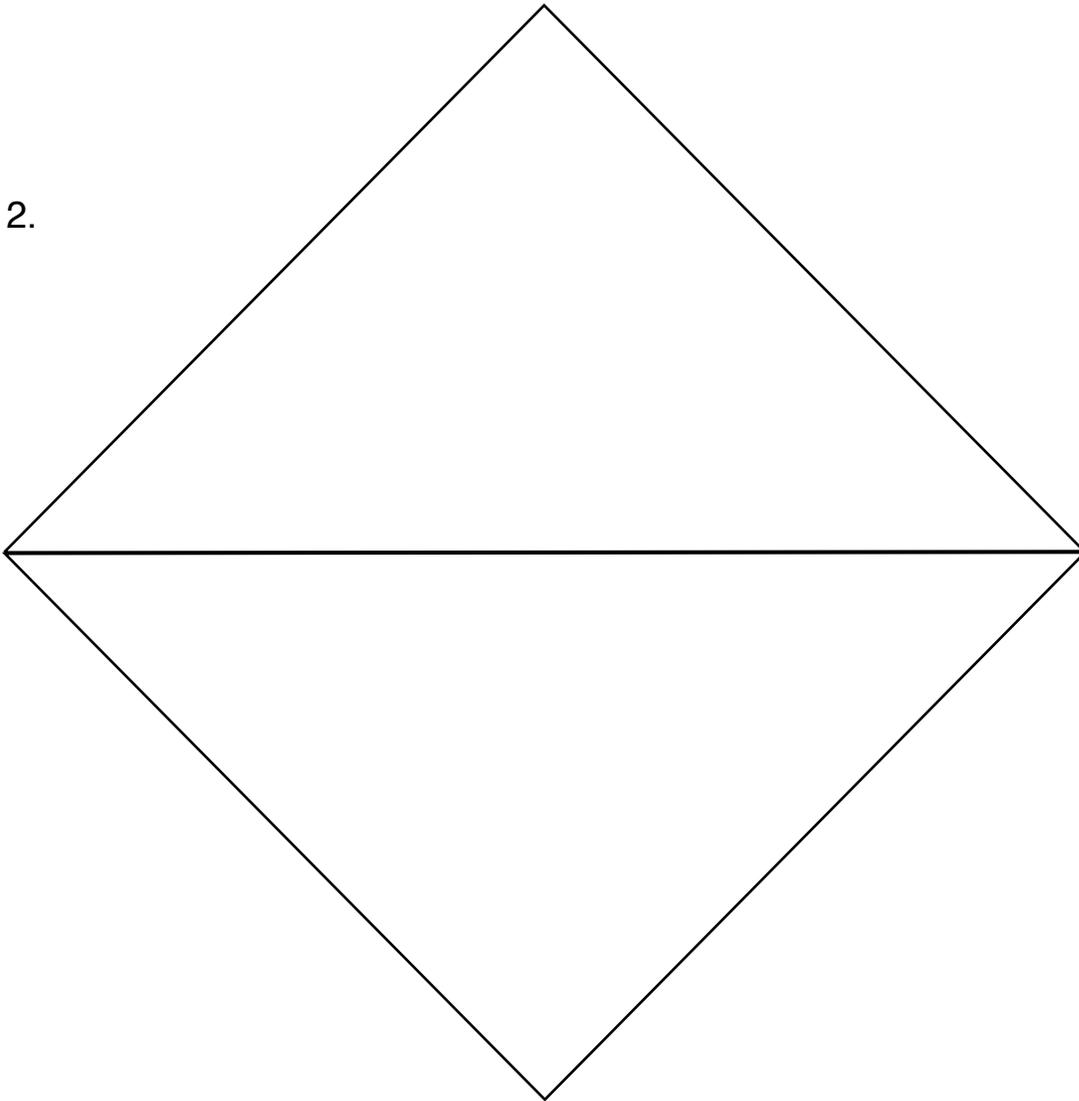


Tangram Puzzles

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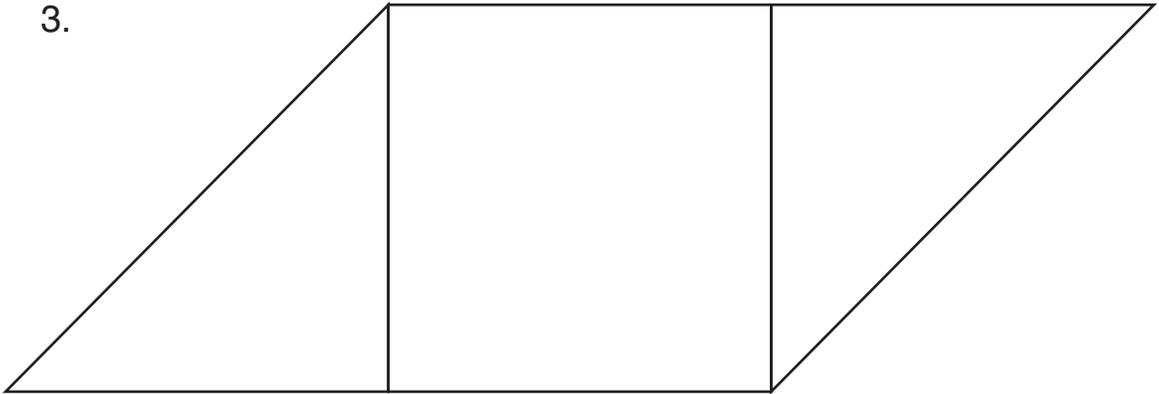
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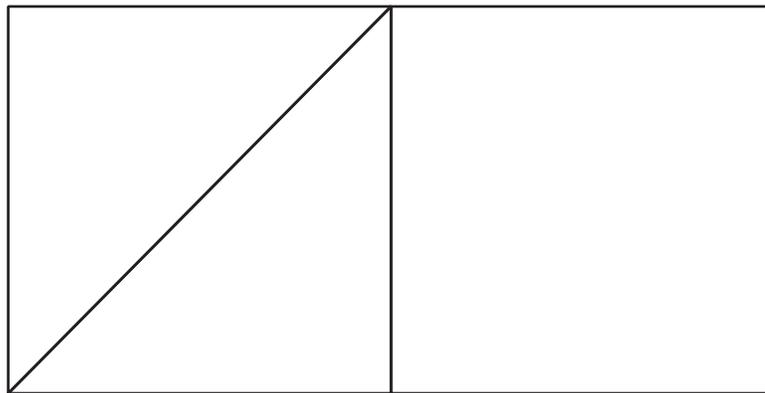


Tangram Puzzles

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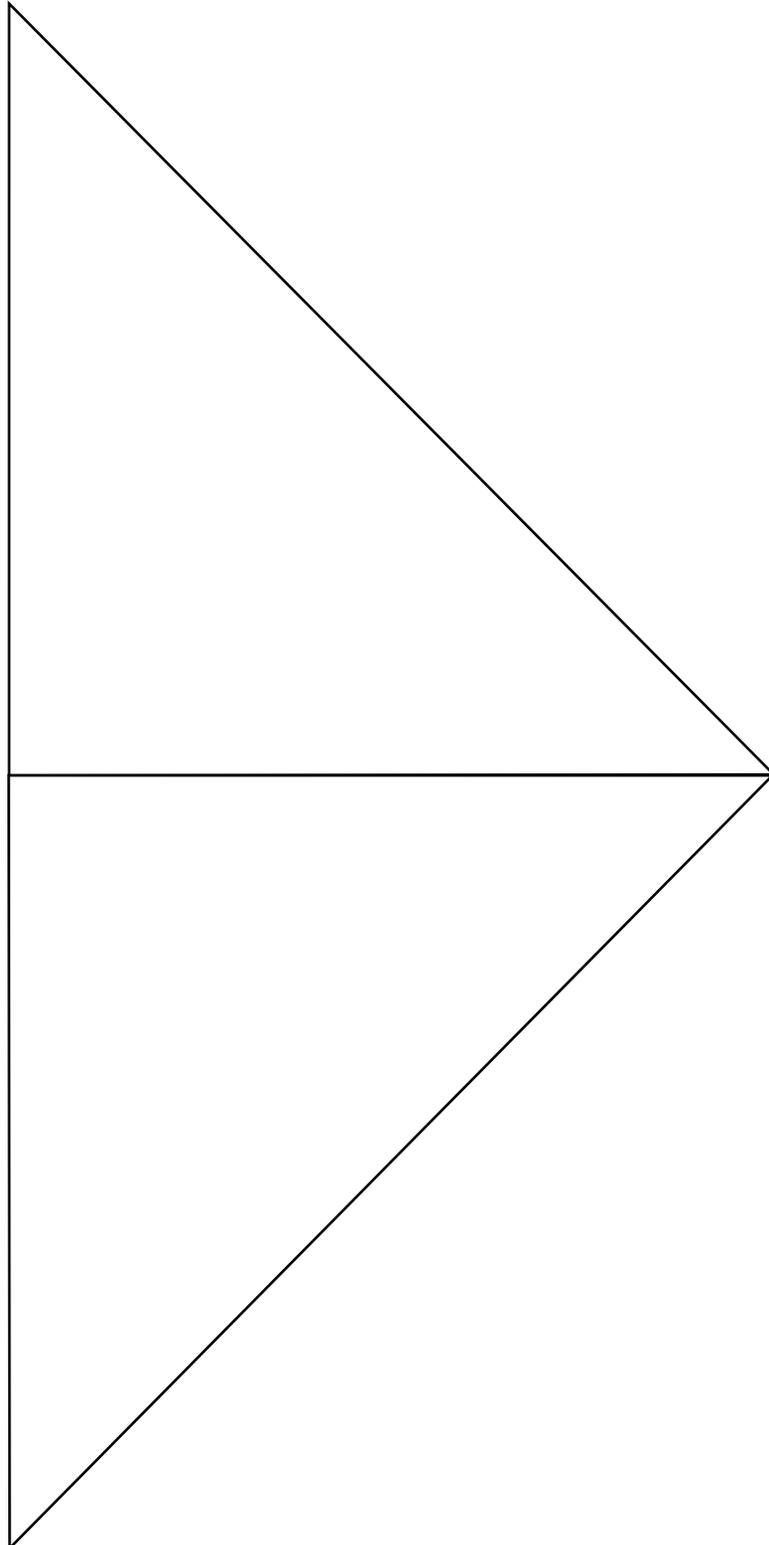
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Tangram Puzzles

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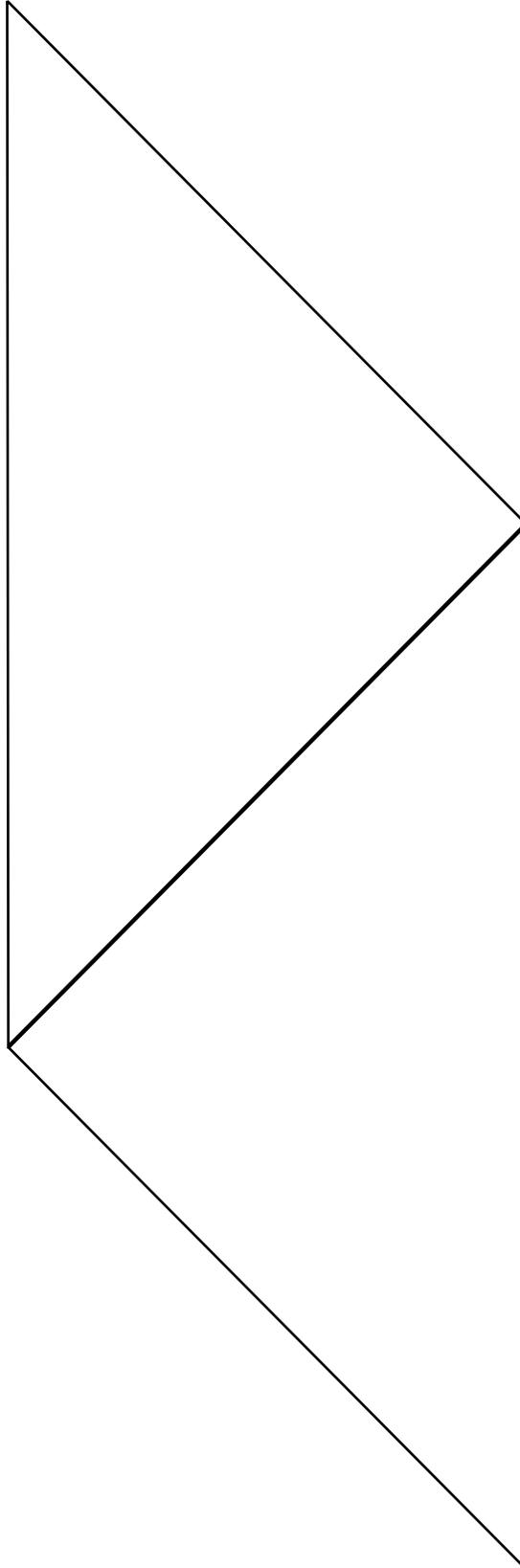


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Tangram Puzzles

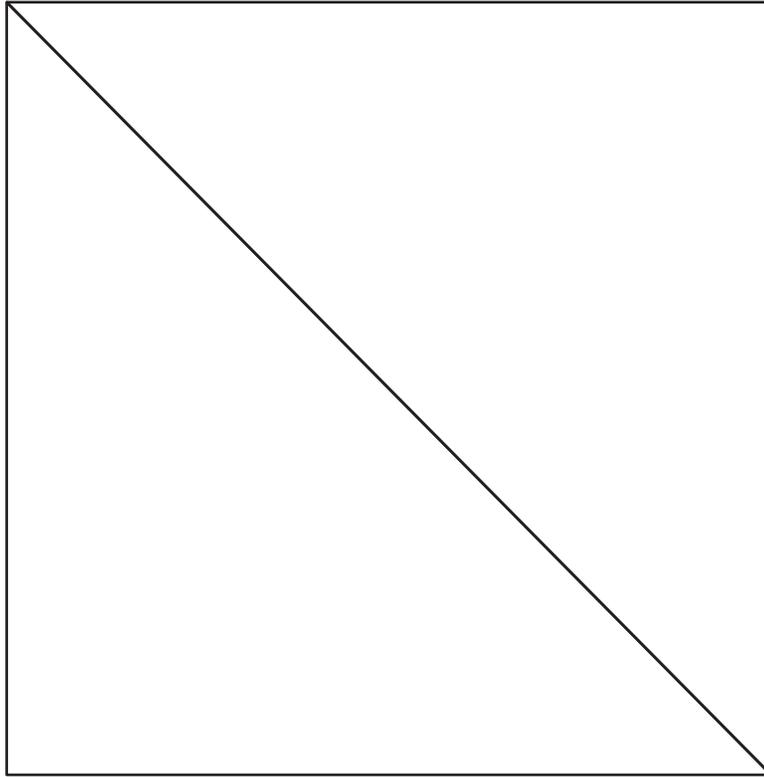
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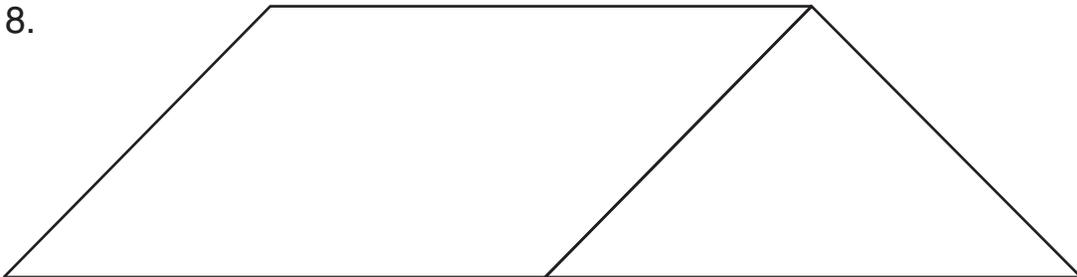


Tangram Puzzles

7.



8.

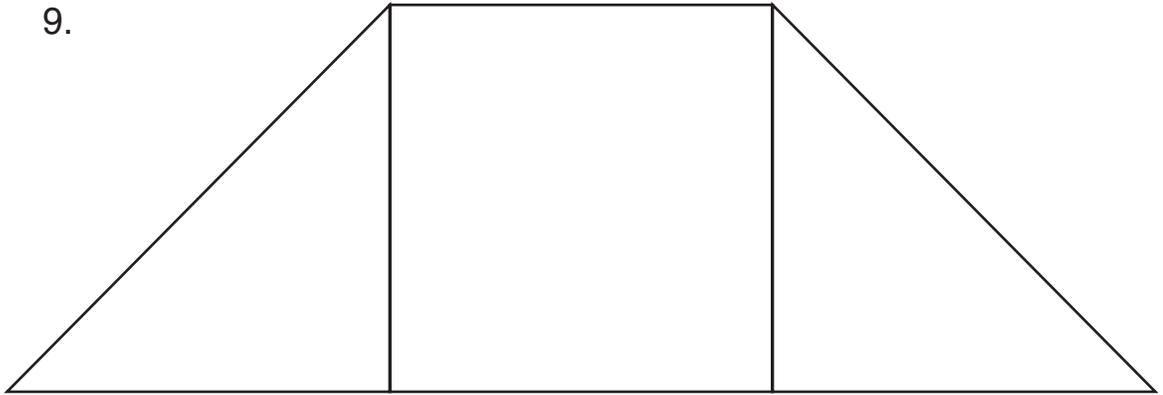


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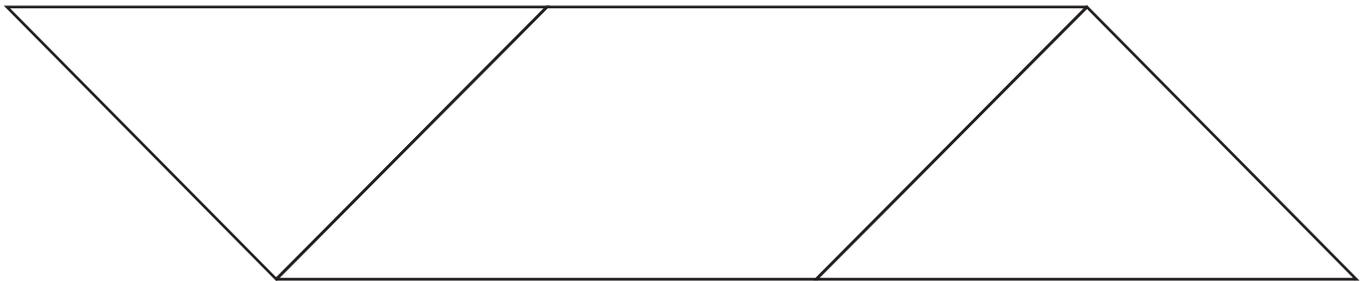


Tangram Puzzles

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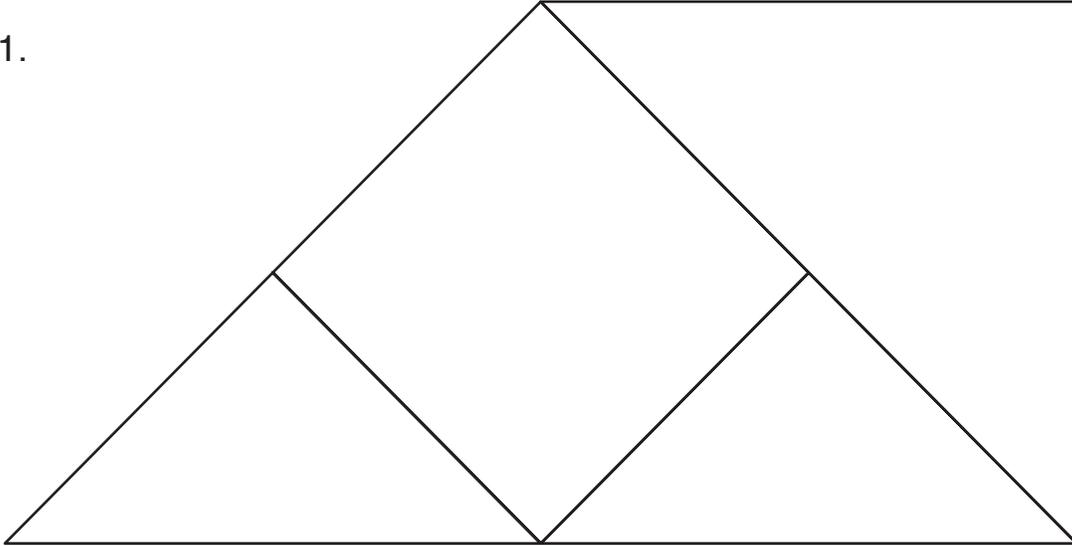
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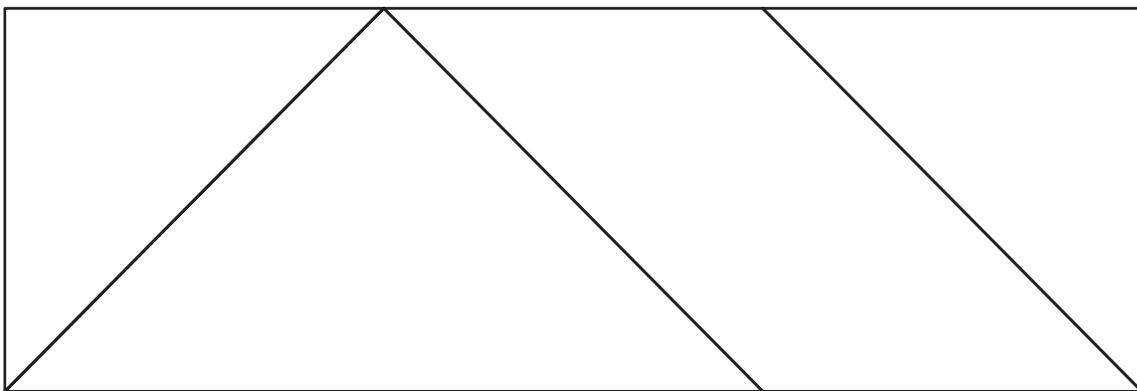


Tangram Puzzles

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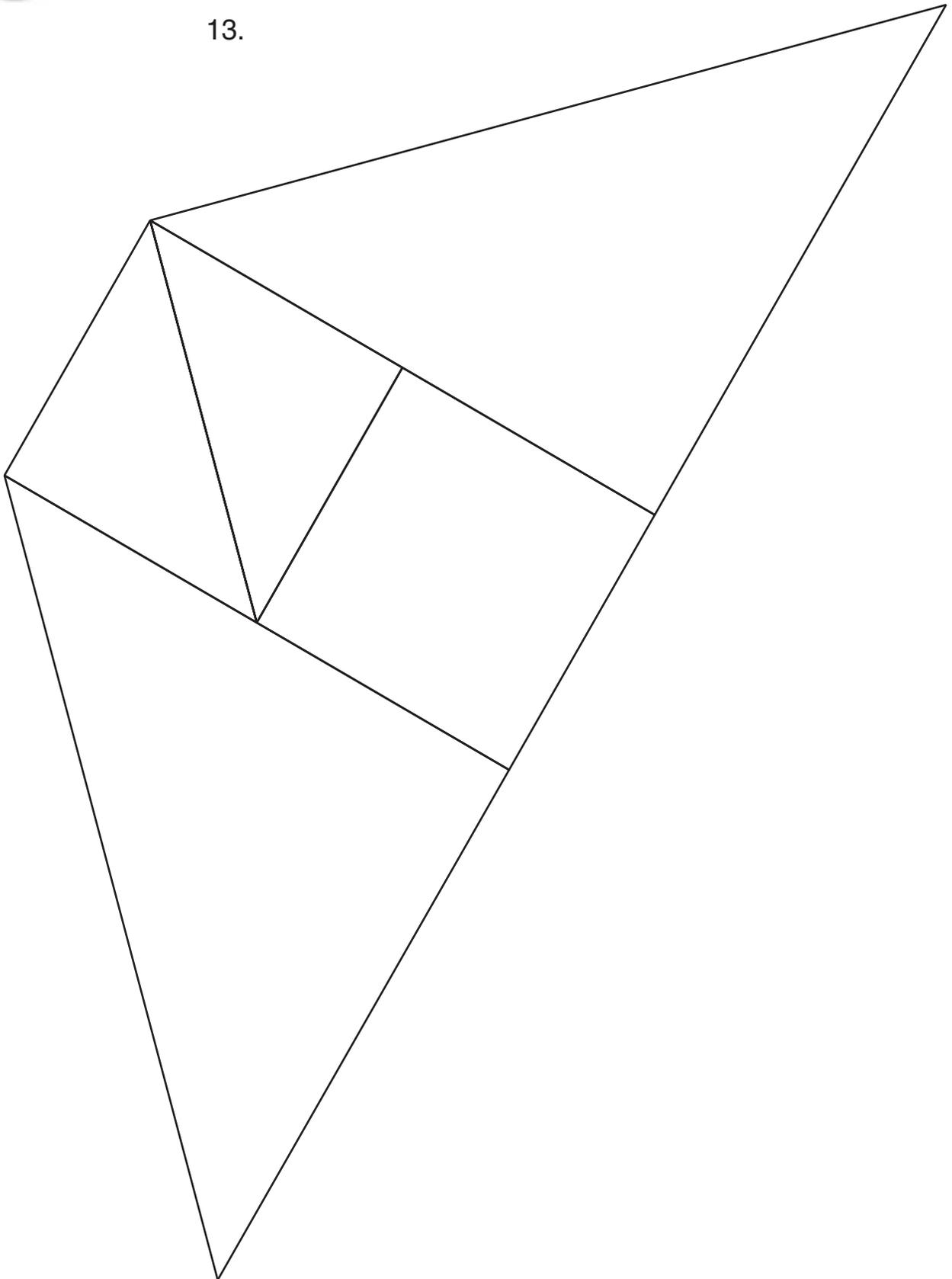
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Tangram Puzzles

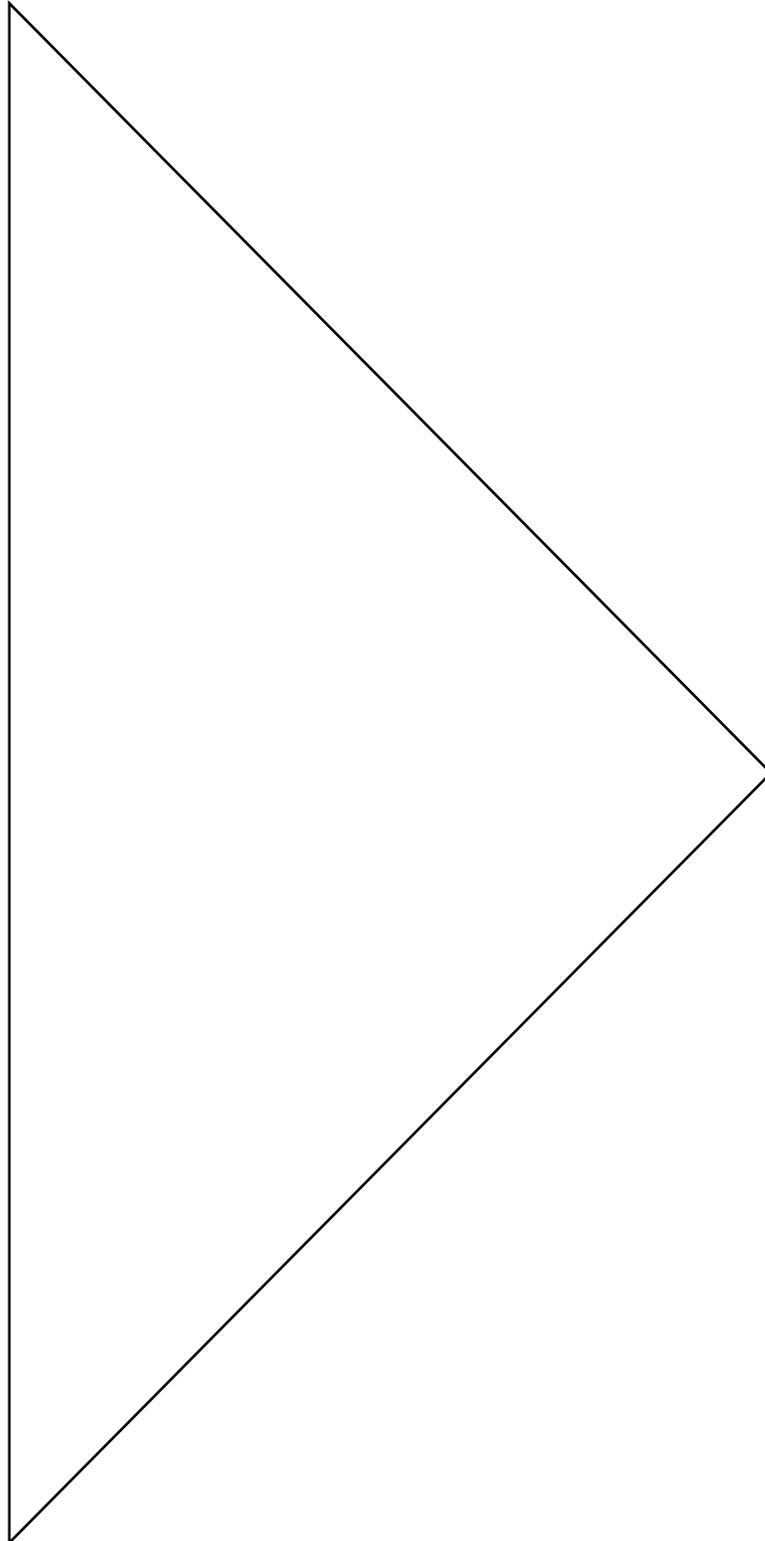
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Tangram Puzzles

14.

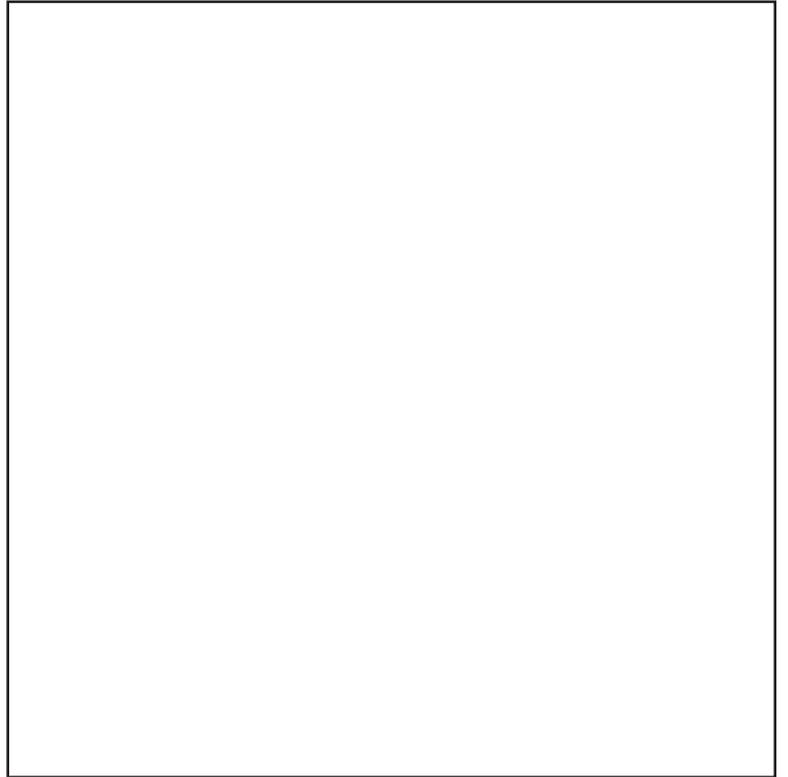


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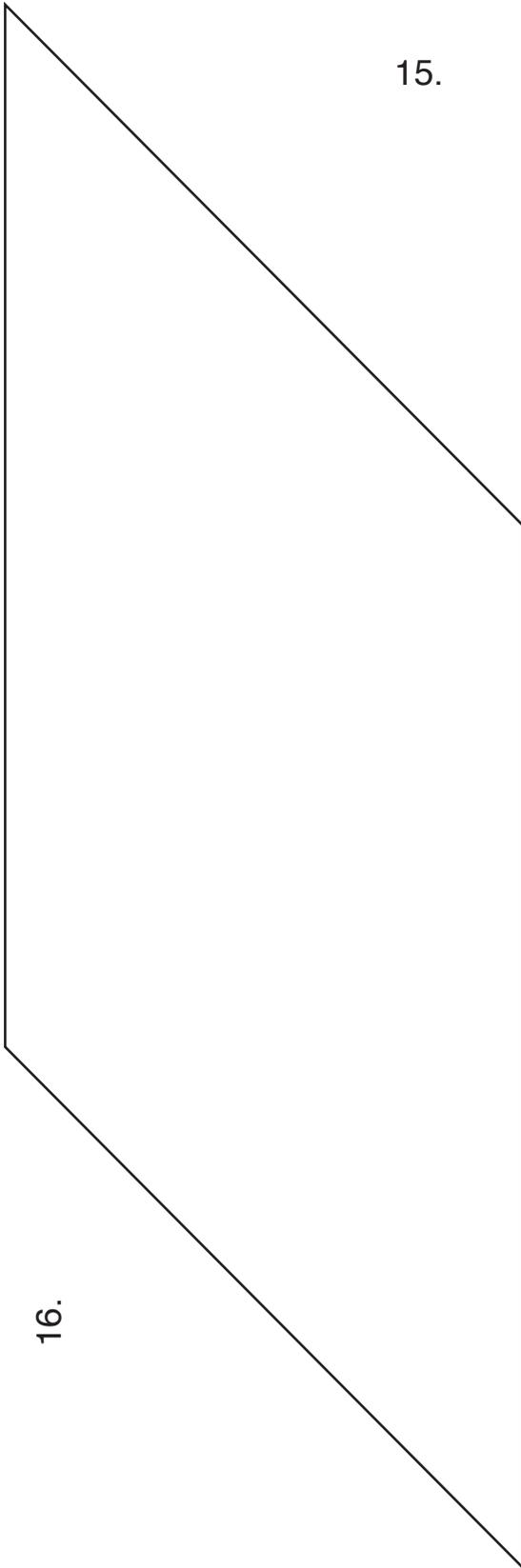


Tangram Puzzles

15.



16.

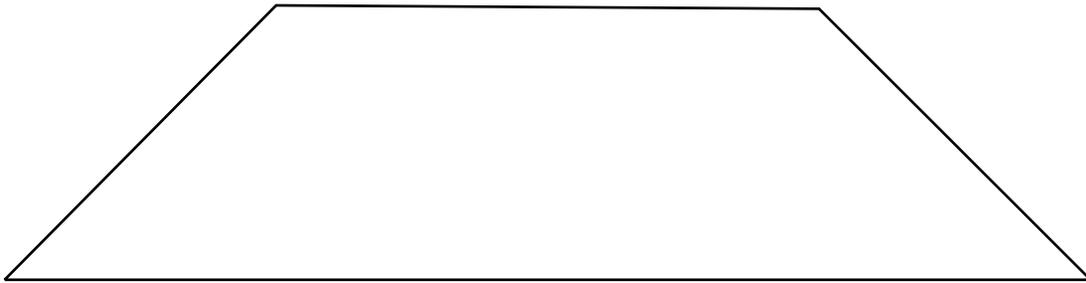


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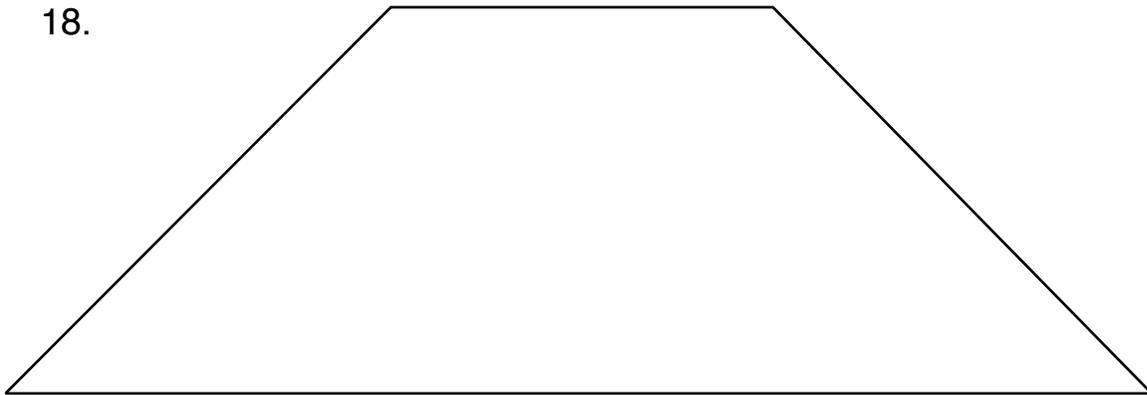


Tangram Puzzles

17.



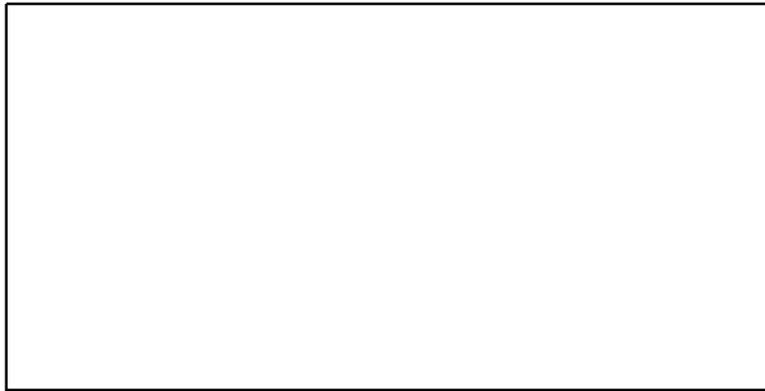
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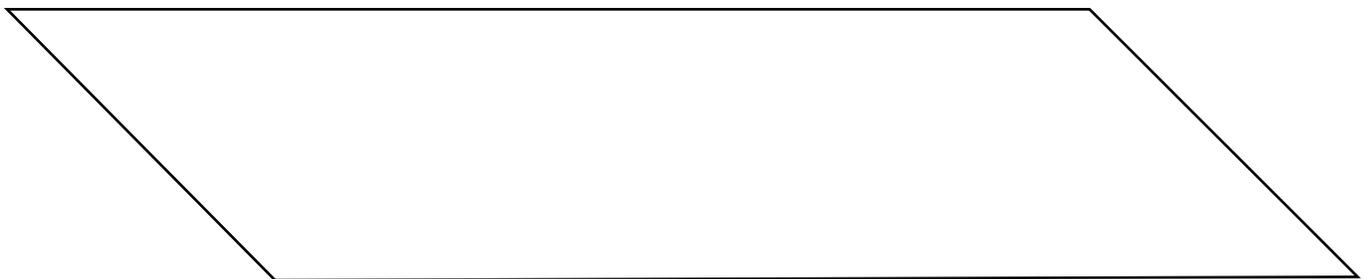


Tangram Puzzles

19.



20.



Shape Flip Book

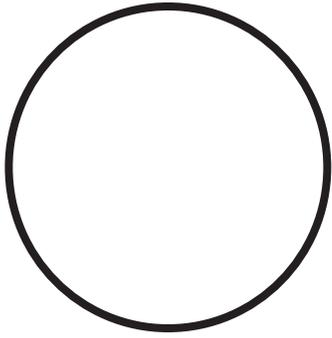
By Douglas H. Clements & Julie Sarama
Illustrated by Brenda Stynes

©2002 Douglas H. Clements, Julie Sarama, Brenda Stynes

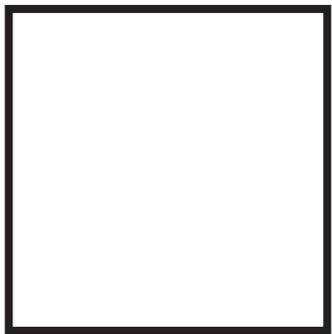
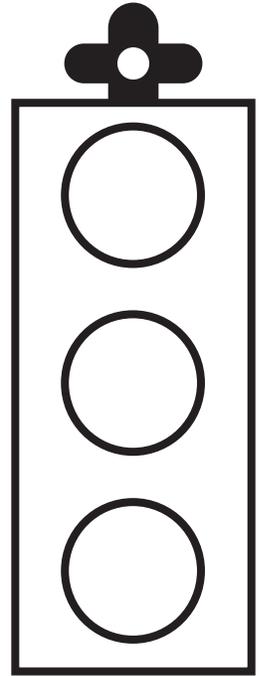
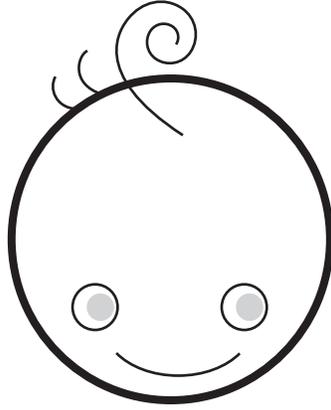
Assembly Directions

The Shape Flip Book is meant to be a spiral book so pages can be flipped. Its purpose is to have children mix up the separate panels, and then try to find shape matches.

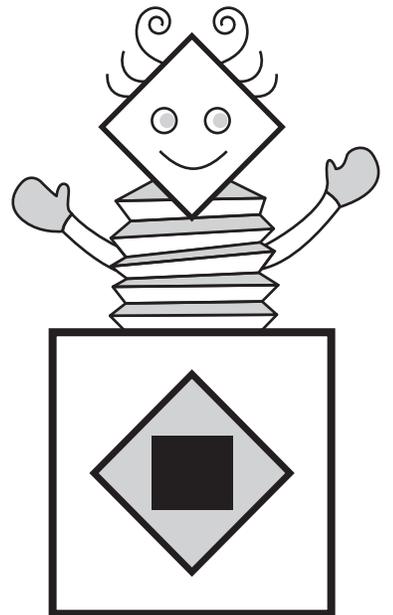
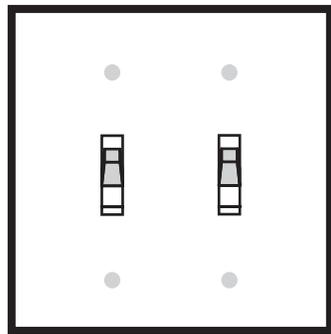
1. Copy the Shape Flip Book's pages. The solid horizontal line divides each page into two book pages; the dotted vertical lines additionally divide each page into three panels or sections.
2. Cut along the solid horizontal line to divide the pages equally. It is recommended that you glue the pages onto tag board (or the like) and laminate them at this stage.
3. Bind the book, which is typically most easily and inexpensively done at an office or teacher supplies store using plastic spiral binding. If you prefer to do it yourself, punch holes across the top (where the solid lines were) and use rings, twist ties, or the like to attach pages.
4. Cut along the dotted vertical lines just far enough to allow the panels to be flipped individually. Test the book. Each page panel should flip easily and separately. You may need to cut more or flip the pages and panels several times before they are manageable for children.

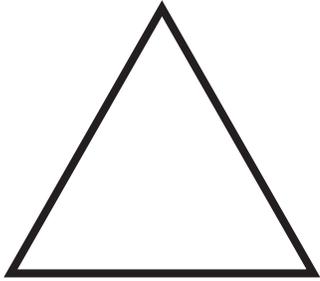


circle

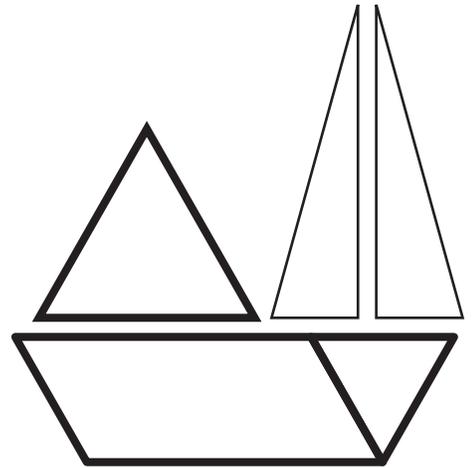
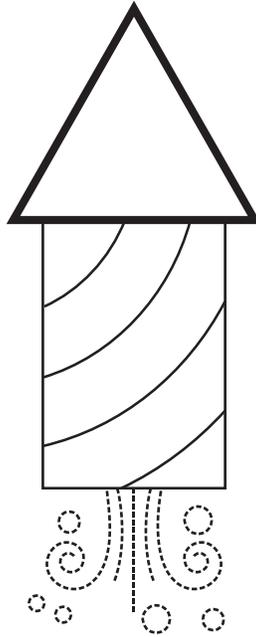


square

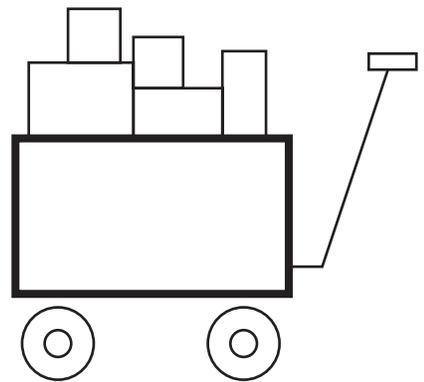
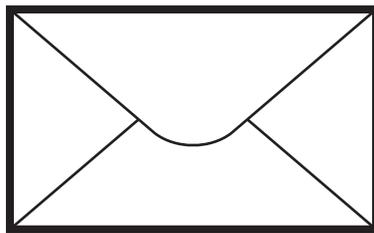


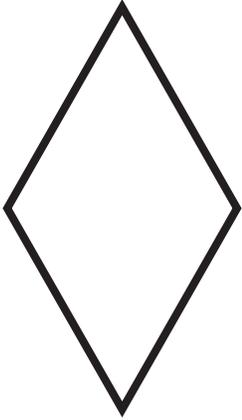


triangle

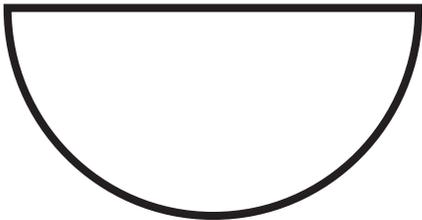
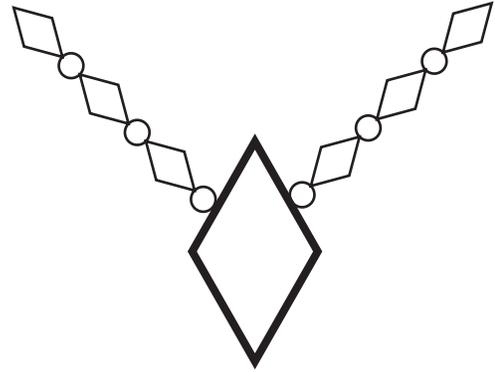
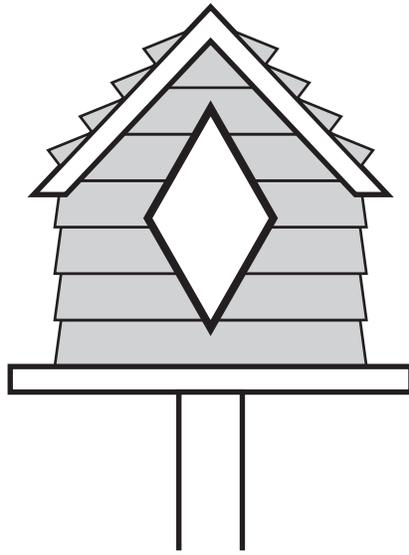


rectangle

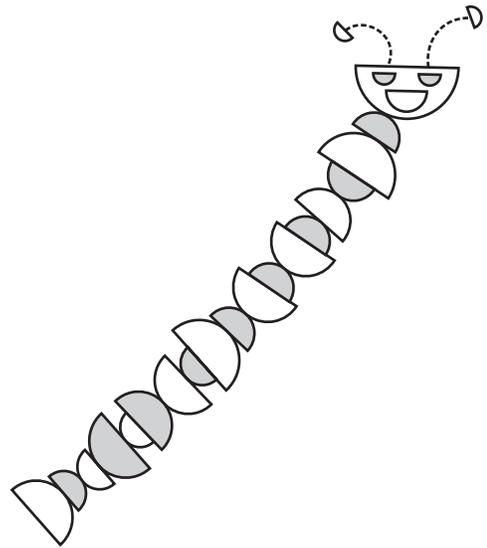
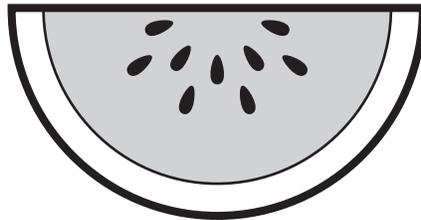




rhombus

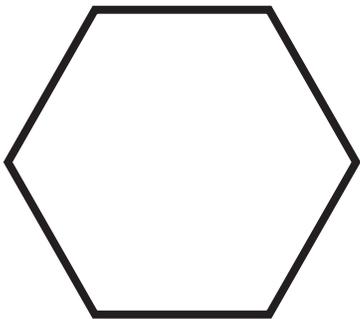
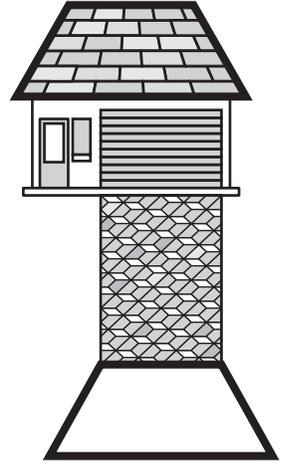


half circle

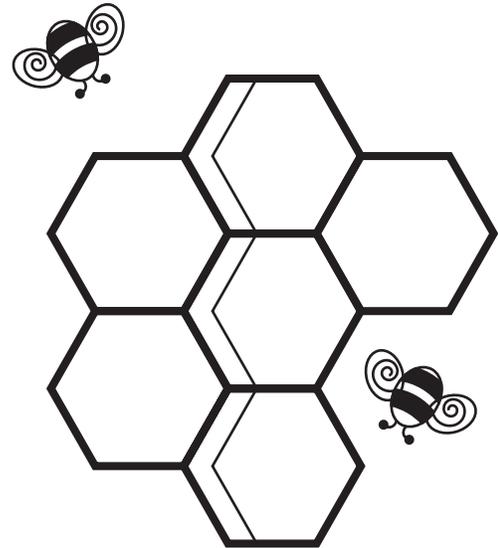
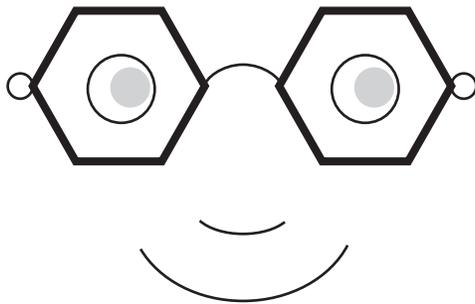


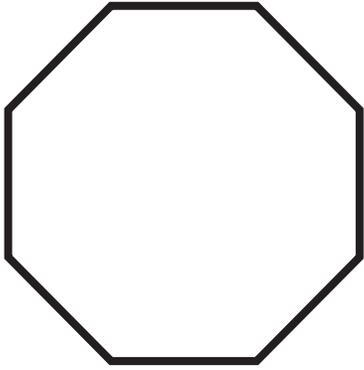


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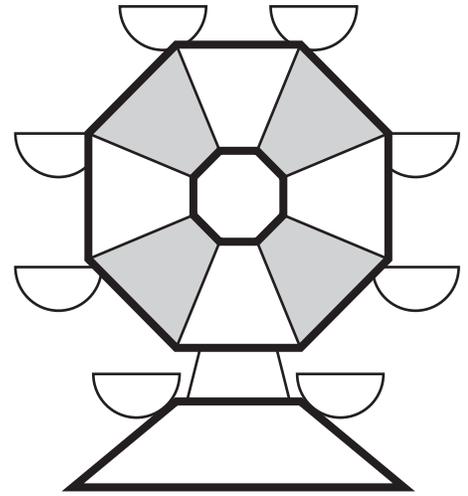
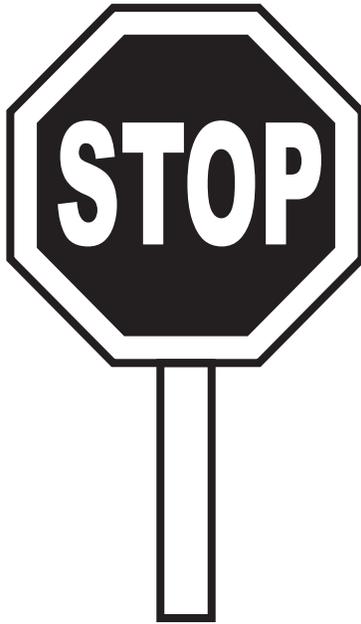


hexagon



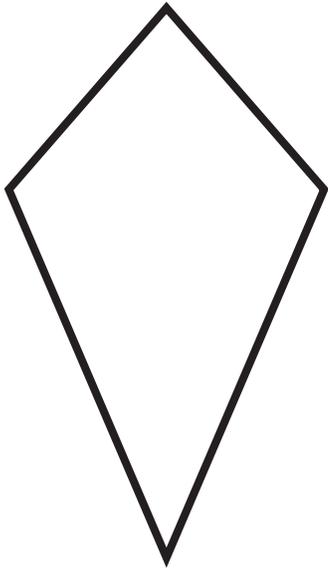


octagon

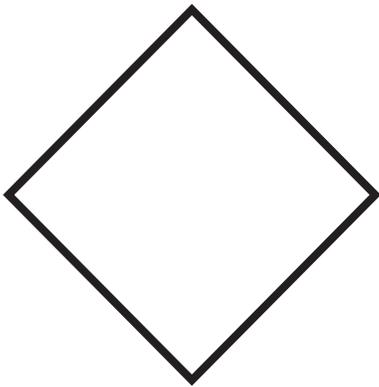
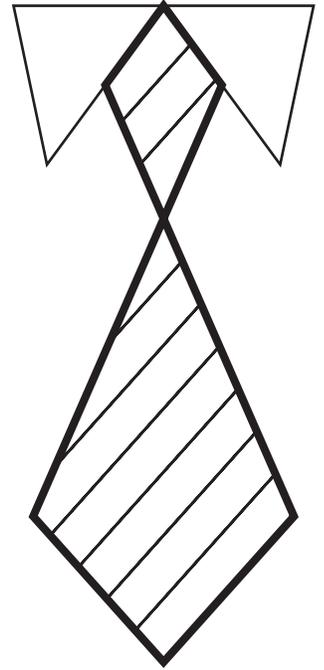
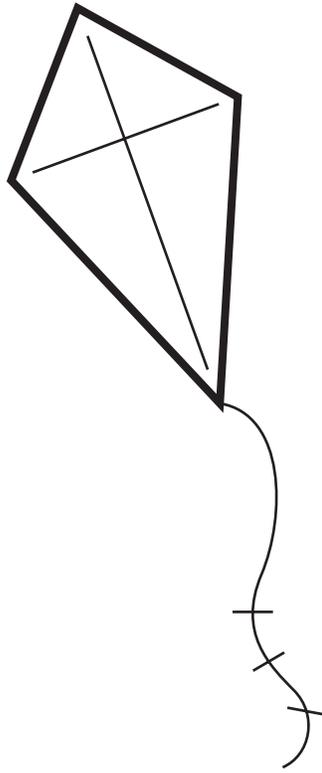


parallelogram

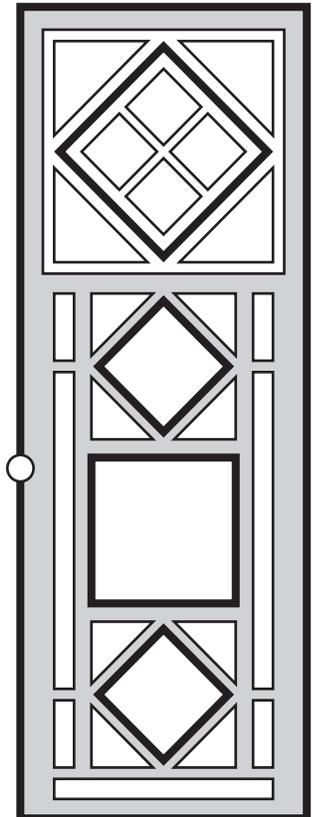
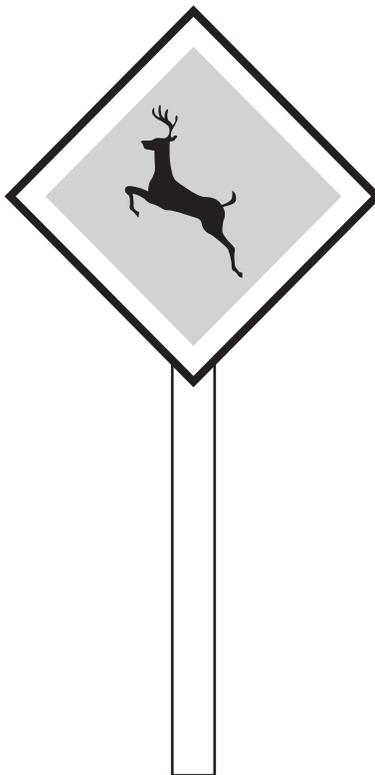


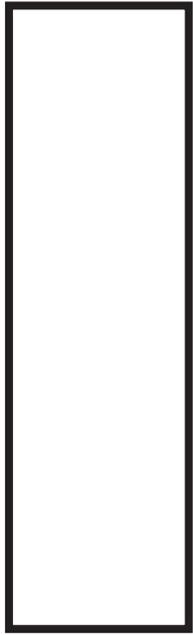


kite

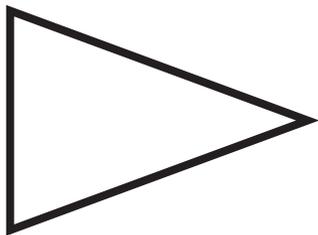
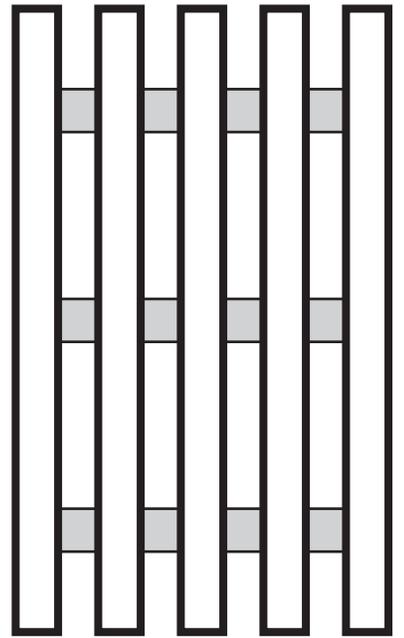
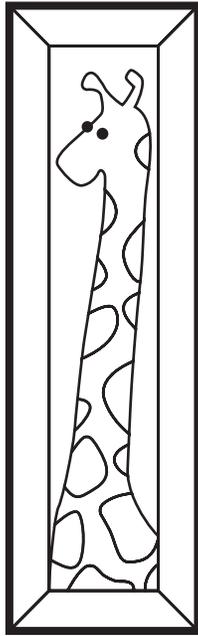


square

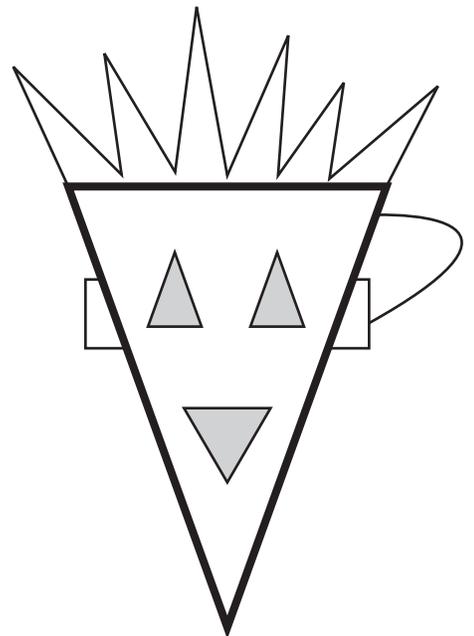
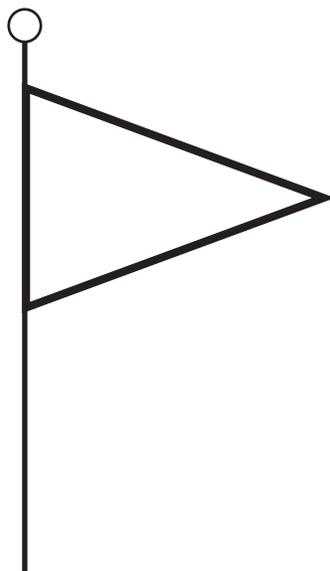


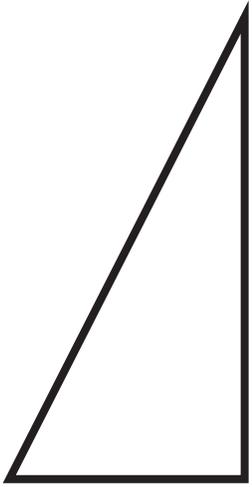


rectangle

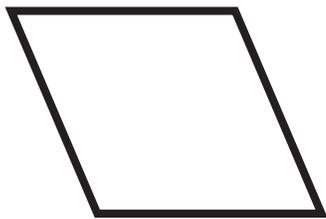
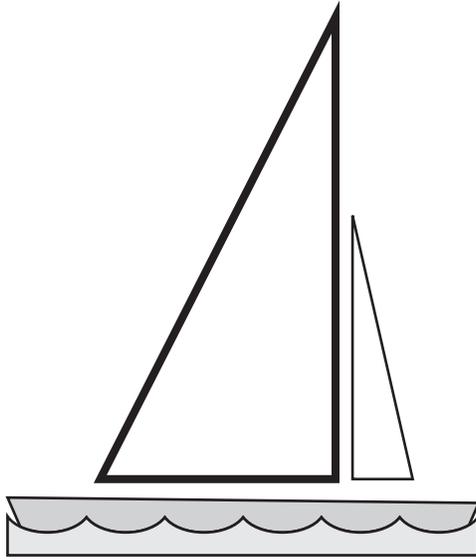


triangle





triangle



rhombus

