Fact Families

Home Link 7-1

NAME DATE

Family Note

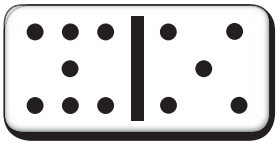
Today your child generated addition and subtraction facts from dominoes to create fact families. Fact families show related facts and help children relate addition to subtraction. Although most dominoes have two addition facts and two subtraction facts, children discussed fact families for doubles (for example, 4 + 4 = 8), which have only one addition fact and one subtraction fact.

Please return this Home Link to school tomorrow.

MRB 46

Write the 3 numbers for each domino.
Use the numbers to write a fact family.

① Numbers: _____, _____, _____

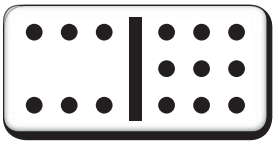


Fact Family:

_____ − _____ = _____ _____ + _____ = _____

_____ − _____ = _____ _____ + _____ = _____

② Numbers: _____, _____, _____



Fact Family:

_____ − _____ = _____ _____ + _____ = _____

_____ − _____ = _____ _____ + _____ = _____

Practice

③ Use a paper clip. Measure the lengths of two shoes.

My shoe: _____ paper clips

Someone else's shoe: _____ paper clips

Whose shoe is longer? How much longer?

_____ shoe is _____ paper clips longer.

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Family Letter

Home Link 7-2

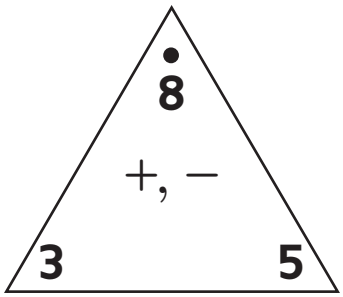
NAME DATE

Fact Triangles

MRB 47

This Family Letter includes several pages of Fact Triangles. Each Fact Triangle includes three numbers that make up a fact family. Have your child cut out each Fact Triangle. Use these triangles like flash cards to practice addition and subtraction facts.

The number below the dot is the sum of the other two numbers. For example, 8 is the sum of 5 and 3.



You can help your child practice addition by covering the sum. Your child then adds the numbers that are not covered. For example, if you cover 8, your child adds 5 and 3 to find the sum, 8.

By covering one of the numbers at the bottom of the triangle, your child can practice subtracting the two uncovered numbers on the triangle from their sum. For example, if you cover 3, your child subtracts
5 from 8. If you cover 5, your child subtracts 3 from 8.

Covering one of the numbers at the bottom of the triangle can also be used to practice finding missing addends. For example, if you cover 3, your child determines the number that is added to 5 to get 8. In other words, $5 + \square = 8$.

Fact Triangles have two advantages over regular flash cards:

1. They reinforce the link between addition and subtraction.
2. They help simplify memorization by linking four facts together. Knowing a single fact means you know four facts.

   $5 + 3 = 8$

   $3 + 5 = 8$

   $8 - 5 = 3$

   $8 - 3 = 5$

Save the Fact Triangles in an envelope or a plastic bag, and use them to continue practicing addition and subtraction facts with your child when you have time.

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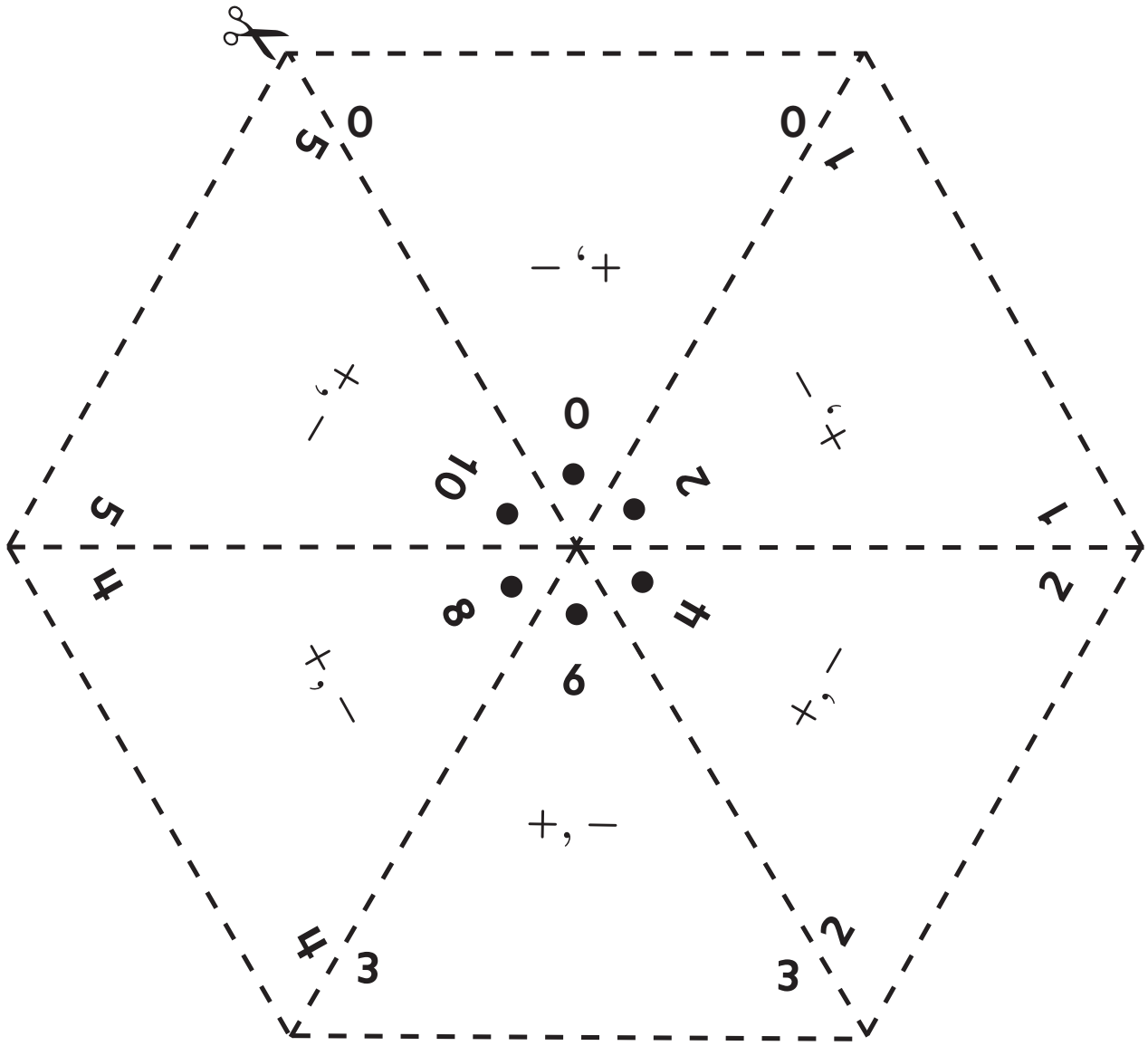
Fact Triangles 1

Home Link 7-2

NAME DATE

Cut out the 6 triangles. Practice the addition and subtraction facts on these triangles with someone at home.



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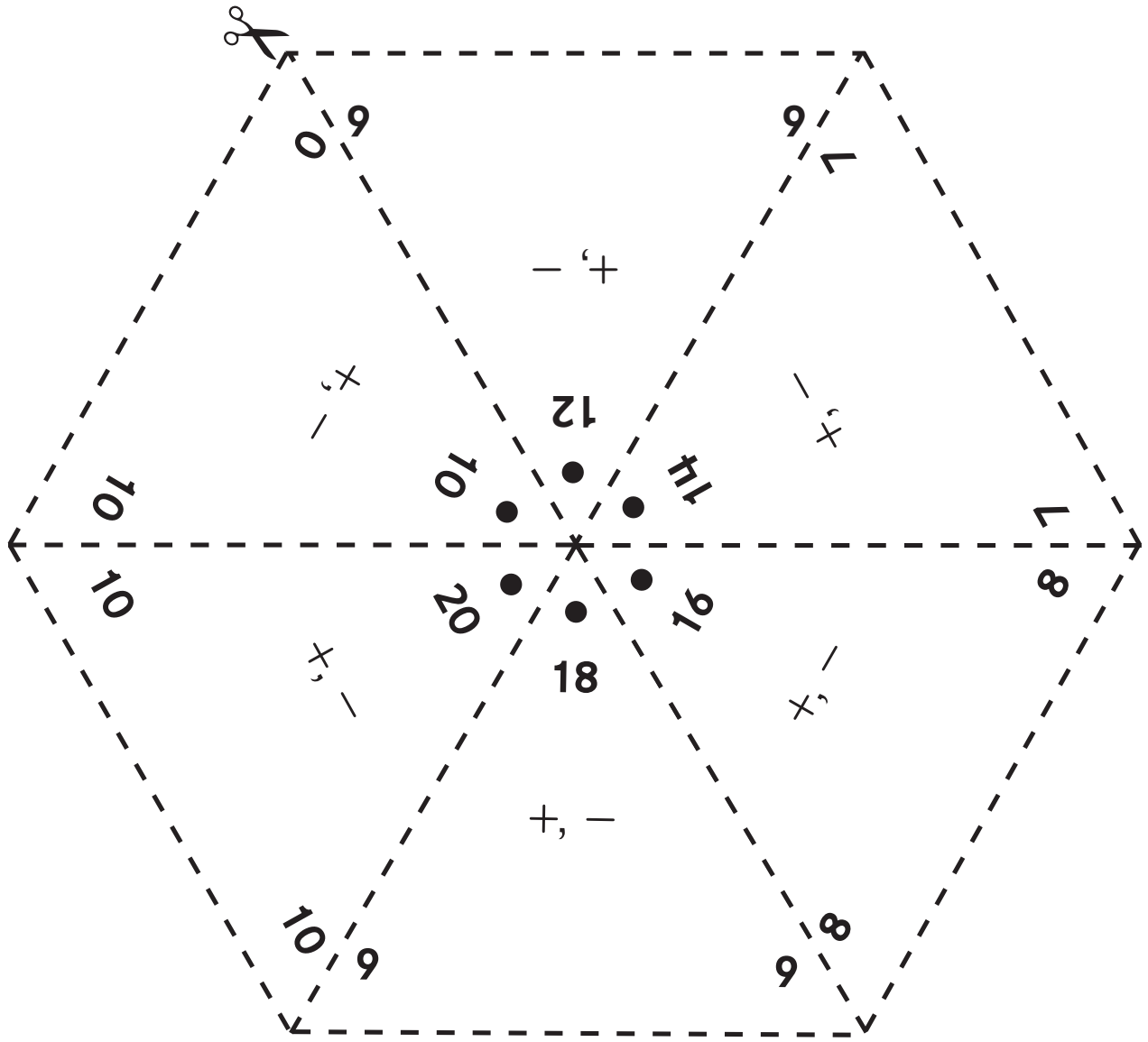
Fact Triangles 2

Home Link 7-2

NAME DATE

Cut out the 6 triangles. Practice the addition and subtraction facts on these triangles with someone at home.



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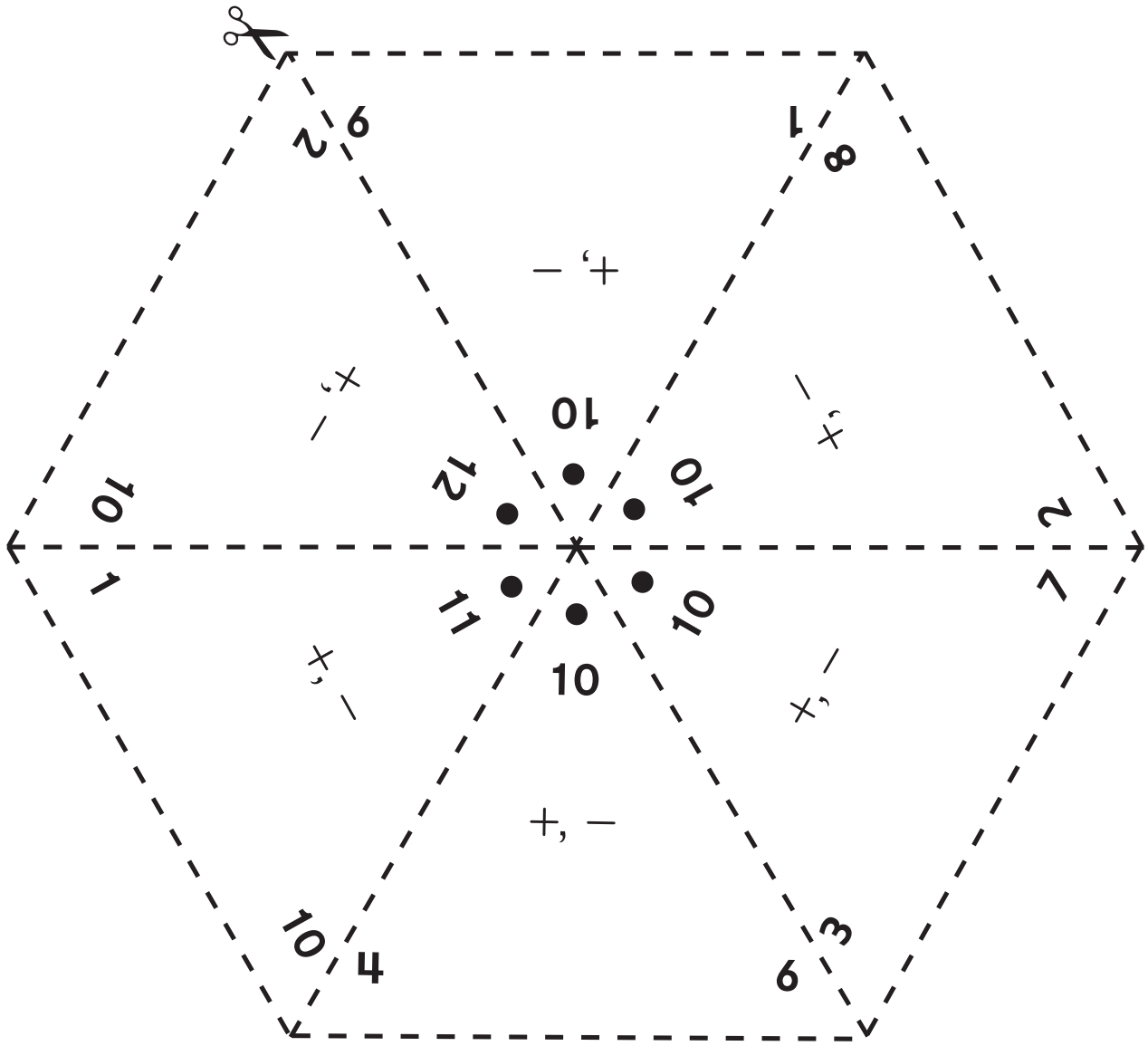
Fact Triangles 3

Home Link 7-2

NAME DATE

Cut out the 6 triangles. Practice the addition and subtraction facts on these triangles with someone at home.



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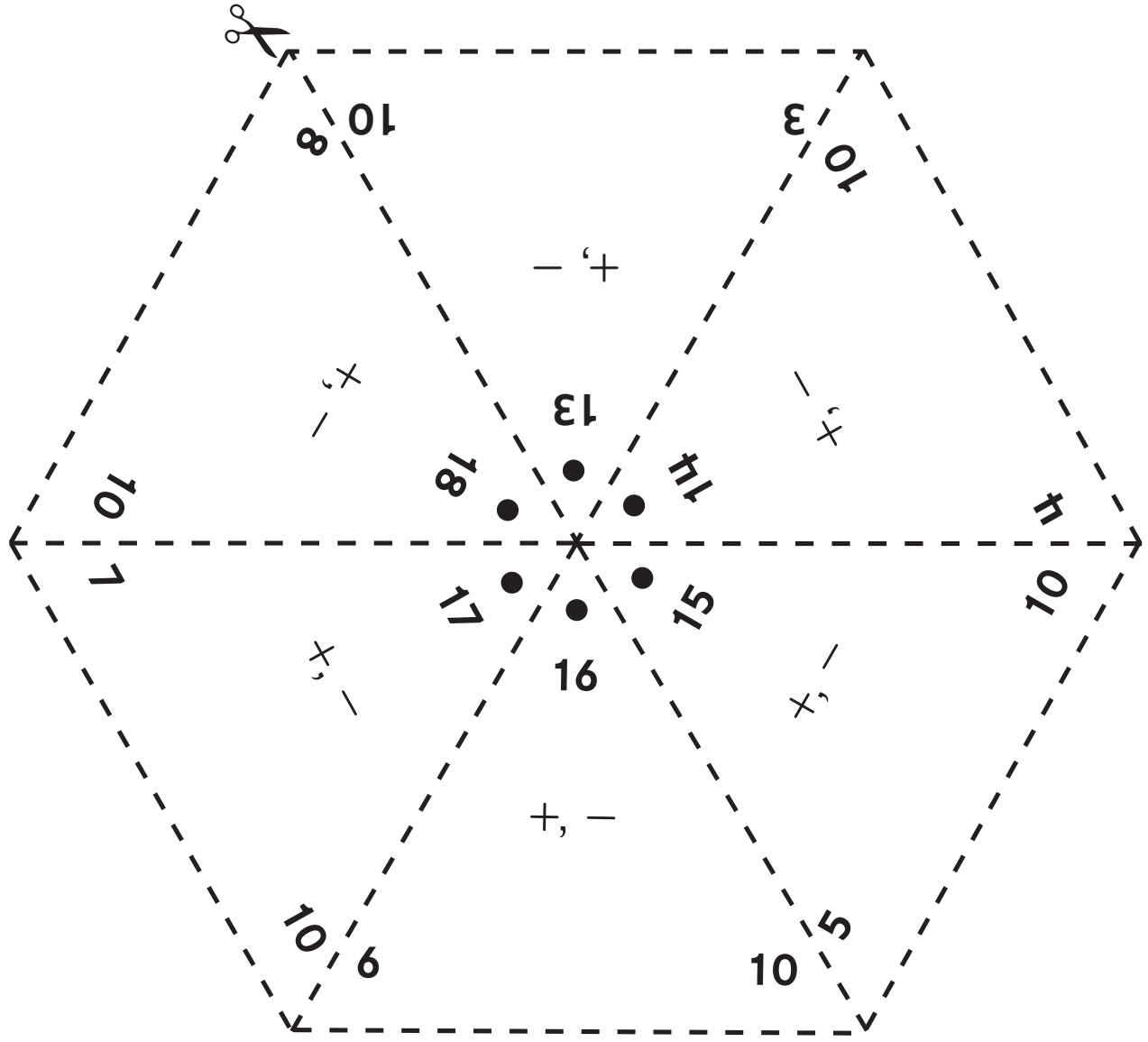
Fact Triangles 4

Home Link 7-2

NAME DATE

Cut out the 6 triangles. Practice the addition and subtraction facts on these triangles with someone at home.



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Relating Special Addition and Subtraction Facts

Home Link 7-3

NAME DATE

Family Note

In recent lessons, children learned about fact families and how addition facts have related subtraction facts. In today's lesson, your child solved subtraction problems by thinking about related addition facts, particularly with doubles and combinations of 10. For example, children might solve $18 - 9 = \square$ by thinking addition: $9 + \square = 18$.

Please return this Home Link to school tomorrow.

MRB 48

Write an addition fact you can use to find the answer. Then write the answer in the blank.

Example: $16 - 8 = \underline{8}$

$8 + \underline{\quad} = 16$

① $6 - 3 = \underline{\quad}$

② $10 - 7 = \underline{\quad}$

③ $12 - 6 = \underline{\quad}$

④ $10 - 1 = \underline{\quad}$

Practice

⑤ Record the time you do each activity.

____ : ____	____ : ____	____ : ____
wake up	eat lunch	go to bed

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More Subtraction Fact Strategies

Home Link 7-4

NAME DATE

Family Note

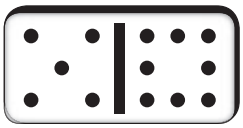
This Home Link reviews some of the work your child has been doing in recent lessons that relates subtraction facts to addition facts. Encourage your child to include some subtraction names in the name-collection box in Problem 2. For example, a subtraction name for 14 is 16 − 2.

Also included in this Home Link are more Fact Triangles for further fact practice.

Please return this Home Link to school tomorrow.

MRB 46, 53

1 Write the 3 numbers for the domino. Use the numbers to write the fact family.



Numbers: _____, _____, _____

Fact Family:

_____ + _____ = _____ _____ + _____ = _____

_____ − _____ = _____ _____ − _____ = _____

2 Write as many names as you can for 14.

14

3 Cross out the names that do not belong.

20

~~////////~~ 5 + 5 + 5

2 + 10 24 − 4

20 + 0 10 + 10

Practice

4 Circle the tens digit. 40 92 39

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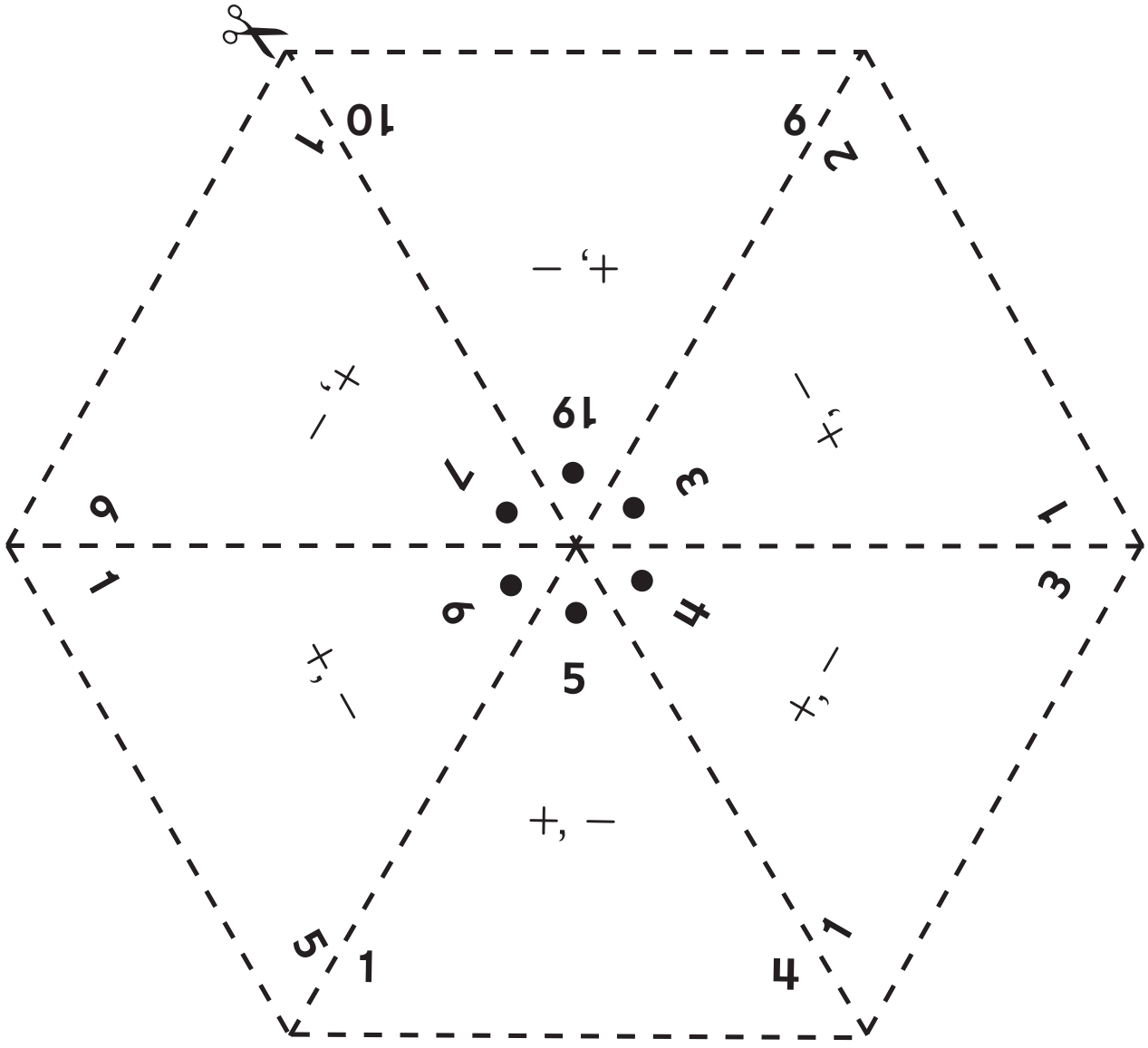
Fact Triangles 5

Home Link 7-4

NAME DATE

Cut out the triangles for addition and subtraction fact practice.



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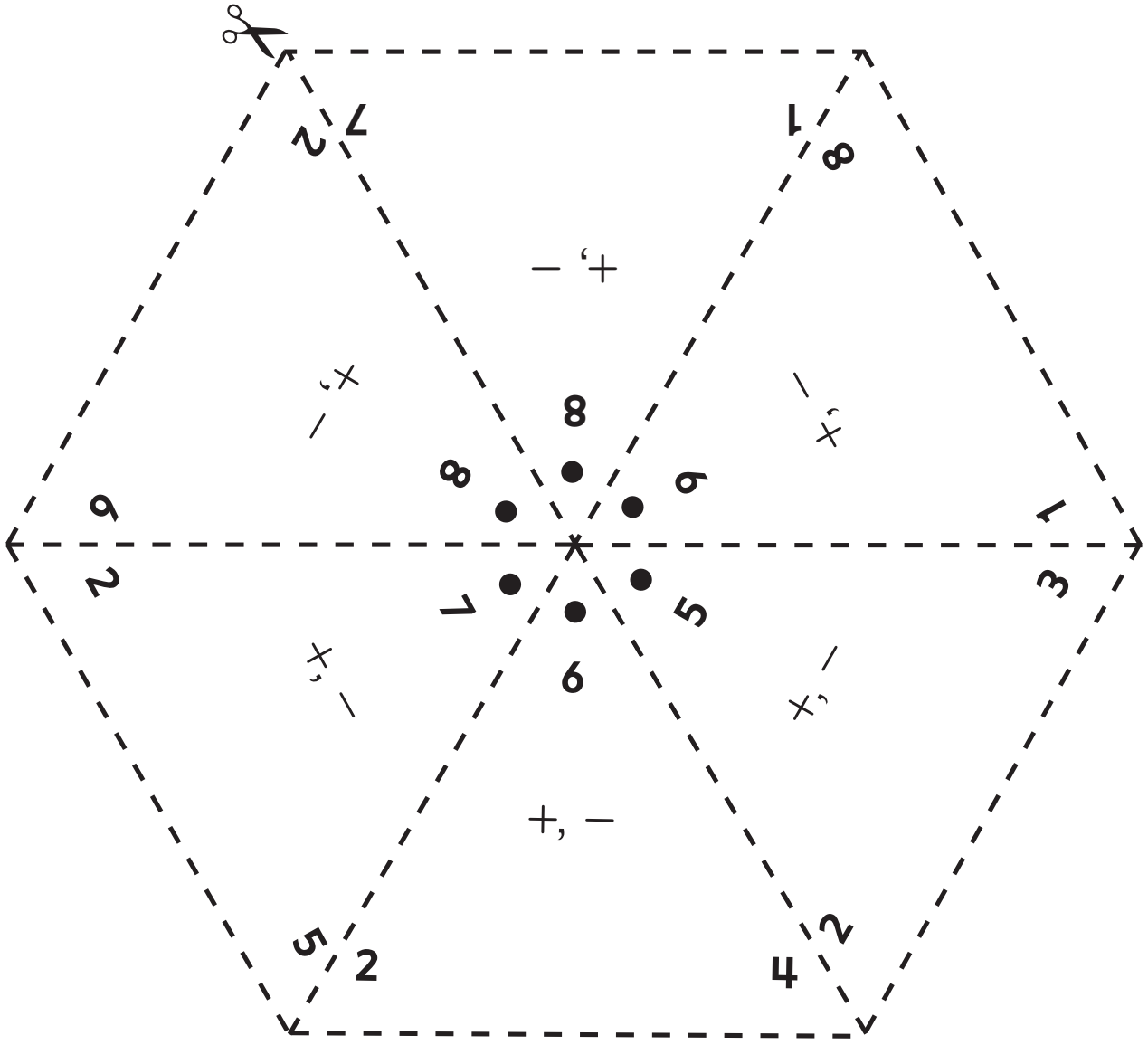
Fact Triangles 6

Home Link 7-4

NAME DATE



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Attributes of Shapes

Home Link 7-5

NAME DATE

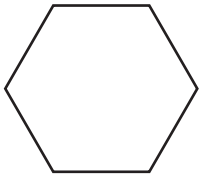
Family Note

Today your child explored attributes of shapes. Some attributes of shapes are color, size, or number of sides or corners. Encourage your child to look carefully at objects all around—not just geometric objects—and identify their attributes.

Please return this Home Link to school tomorrow.

List three attributes of each shape.

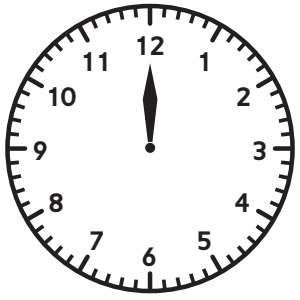
MRB 125

① 

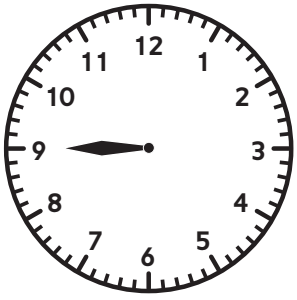
② 

Practice

③ Record the time.



about _____ o'clock



about _____ o'clock

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Exploring Attributes, Fractions, and *Salute!*

Home Link 7-6

NAME DATE

Family Note

Today your child explored the connection between addition and subtraction in the game *Salute!,* divided shapes in half, and further explored attributes of shapes. Children will continue working with shapes in future lessons. To prepare for this, help your child find objects with the shapes listed below.

Also included in this Home Link are more Fact Triangles for further fact practice.

Please return this Home Link to school tomorrow.

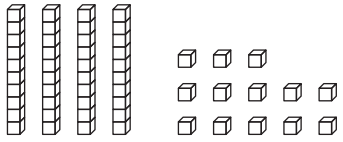
1. Find something in your house that has a triangle on it. Write its name, or draw its picture. MRB 122-123

2. Find something in your house that has a circle on it. Write its name, or draw its picture.

3. Find something in your house that has a square on it. Write its name, or draw its picture.

Practice

4. What number do the base-10 blocks show?



_____

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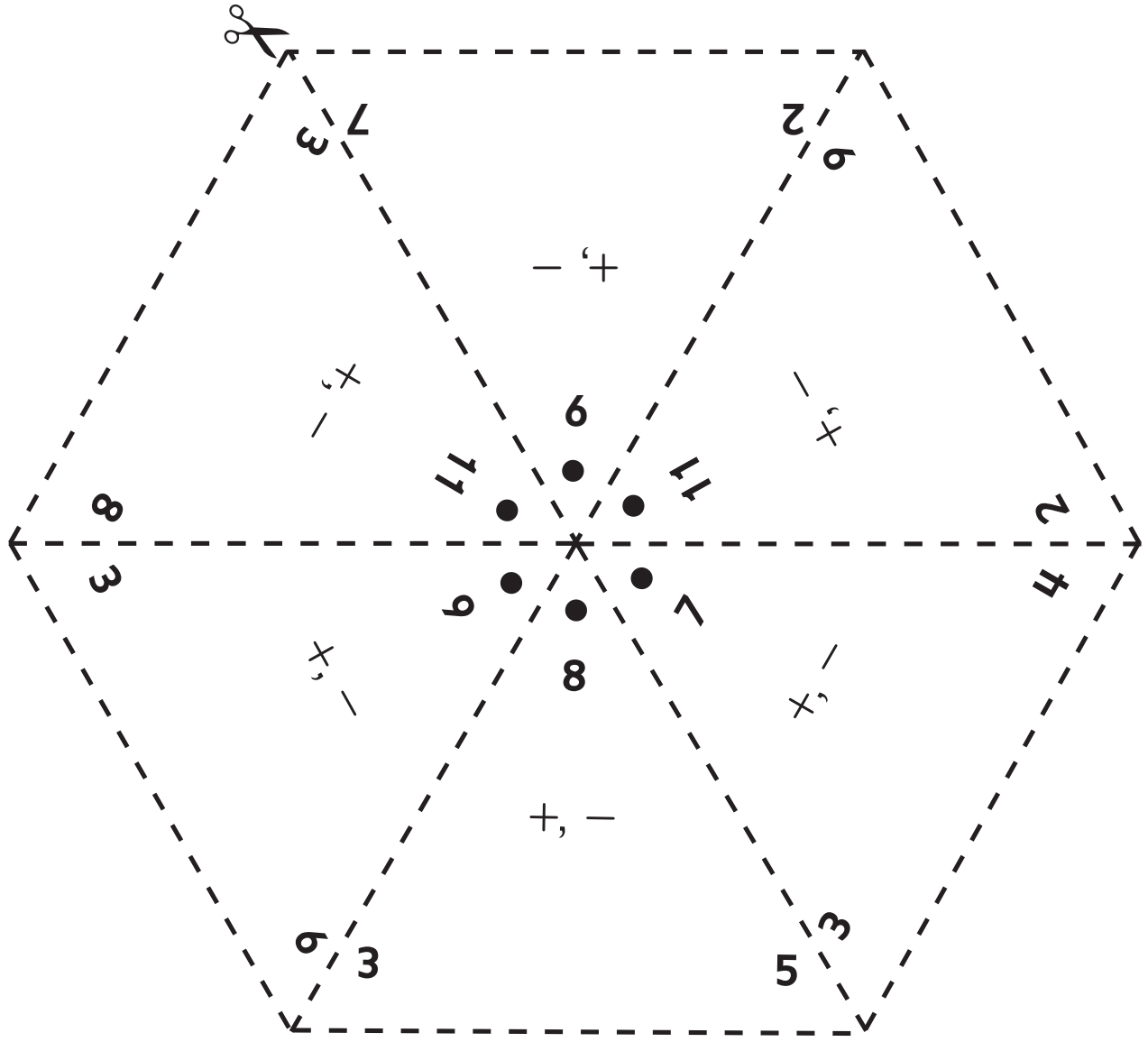
Fact Triangles 7

Home Link 7-6

NAME DATE

Cut out the triangles for addition and subtraction fact practice.



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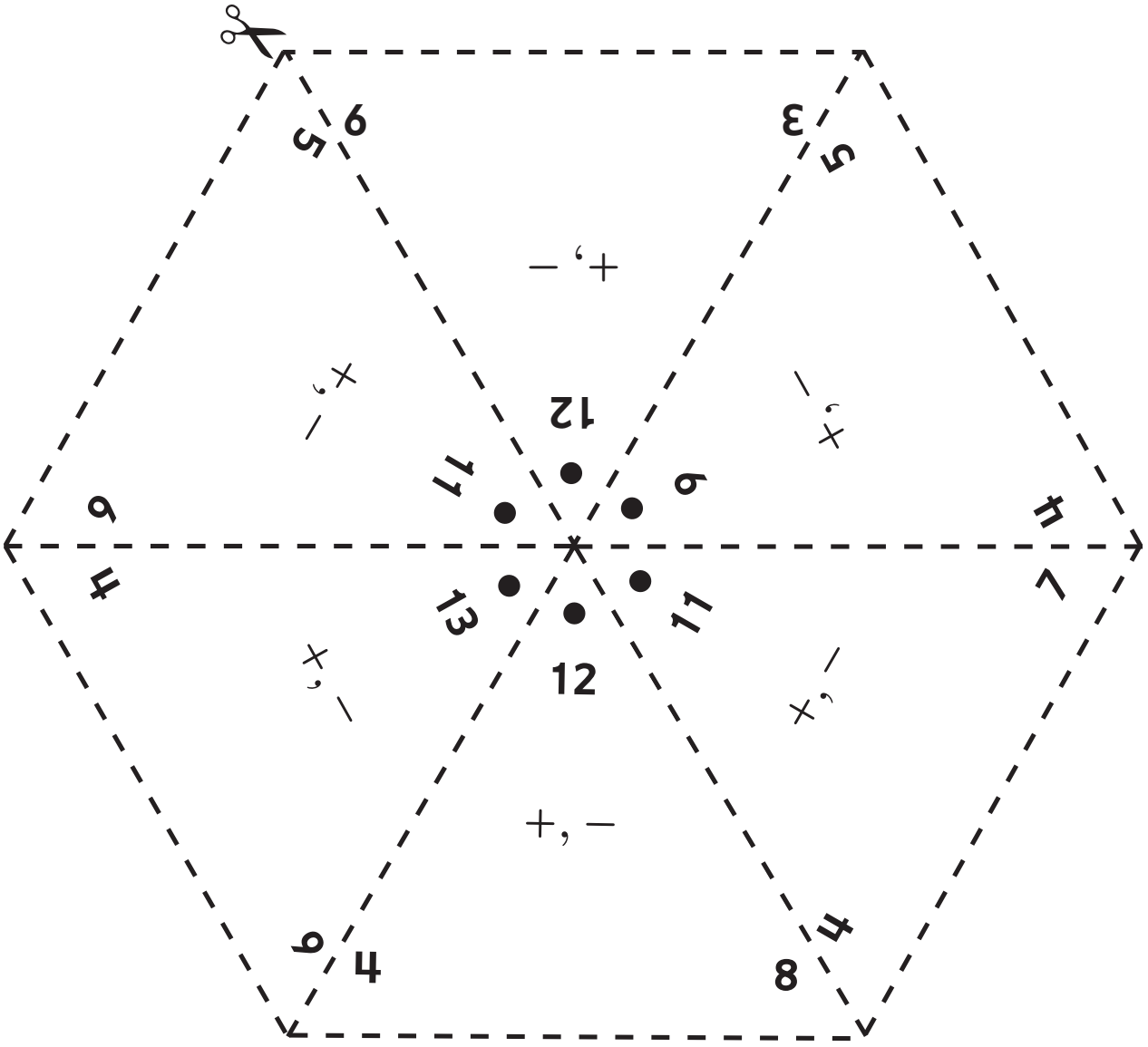
Fact Triangles 8

Home Link 7-6

NAME DATE



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Defining and Nondefining Attributes

Home Link 7-7

NAME DATE

Family Note

Today your child learned about the attributes that define triangles and rectangles, such as the numbers of sides and corners (also called *vertices*). Without these defining attributes, a shape cannot be a triangle or a rectangle. Children also learned about nondefining attributes of shapes, such as color and size.

Please return this Home Link to school tomorrow.

(1) Draw 2 different triangles. The triangles must have *at least two* attributes that are different.

MRB 125

(2) Name the attributes that are different.

(3) Name the attributes that are the same.

Practice

(4) Solve.

$2 + 5 =$ _____ _____ $= 5 + 2$ $3 + 7 + 8 =$ _____

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"What's My Rule?"

Home Link 7-8

NAME DATE

Family Note

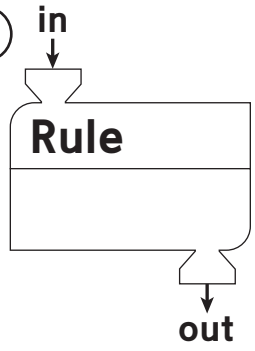
Ask your child to explain what the function machine is doing to the "in" numbers before he or she fills in the missing "out" numbers. For example, in the first problem, the function machine is adding 1 to each of the "in" numbers.

Also included in this Home Link are more Fact Triangles. This set of Fact Triangles includes three blanks. Fill them with whatever facts your child would like to practice more.

Please return this Home Link to school tomorrow.

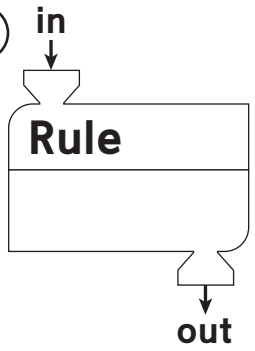
MRB 56-58

Fill in the missing rule and numbers.

① 

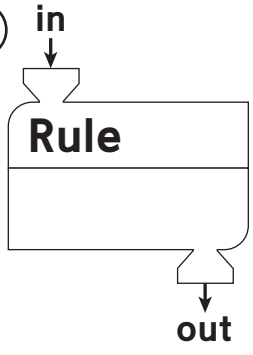
in	out
6	7
14	15
13	14
19	
9	

Your turn:

② 

in	out
10	8
7	5
16	14
12	
11	

Your turn:

③ 

in	out
10	3
7	0
16	9
12	
11	

Your turn:

Practice

Solve.

④ $4 + \_\_\_\_\_ = 8$

⑤ $10 = 6 + \_\_\_\_\_$

⑥ $\_\_\_\_\_ = 8 - 1$

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Family Letter

Home Link 7-8

NAME DATE

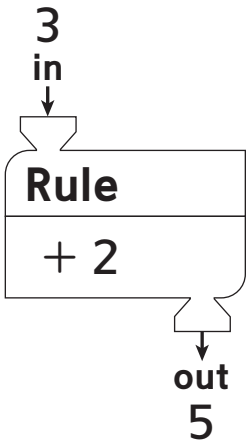
"What's My Rule?"

Today your child learned about a kind of problem you may not have seen before. We call it "What's My Rule?" Please ask your child to explain it to you. Here is a little background information you might find useful.

Imagine a machine that has a funnel at the top and a tube at the bottom—we call this a *function machine*. The function machine can be programmed so that when you drop a number into the funnel at the top, the machine changes the number according to the rule and a new number comes out of the tube at the bottom.

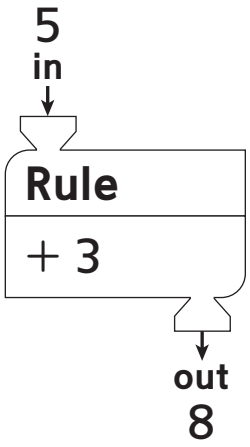
For example, you can program the machine to add 2 to any number that is dropped into the funnel. If you put in 3, out comes 5; if you put in 6, out comes 8.

You can show this with a table:



in	out
3	5
6	8
10	12

Here is another example of a function machine:



in	out
5	8
6	9
2	5

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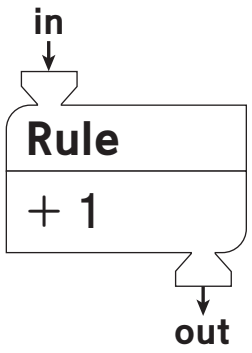
Family Letter (continued)

Home Link 7-8

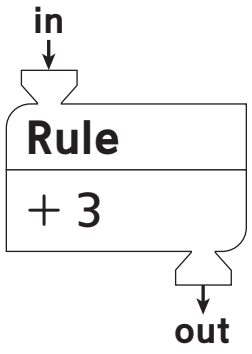
NAME DATE

In a "What's My Rule?" problem, some of the information is missing. To solve the problem, you have to find the missing information. The missing information can be the numbers that are dropped in, the numbers that come out, or the rule for programming the machine. *For example:*



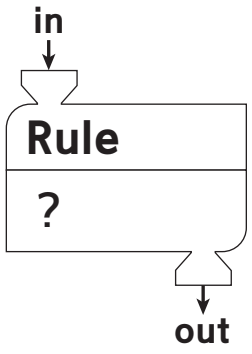
in	out
3	
5	
8	

Missing "out" numbers



in	out
	6
	8
	10

Missing "in" numbers



in	out
6	4
10	8
12	10

Missing rule

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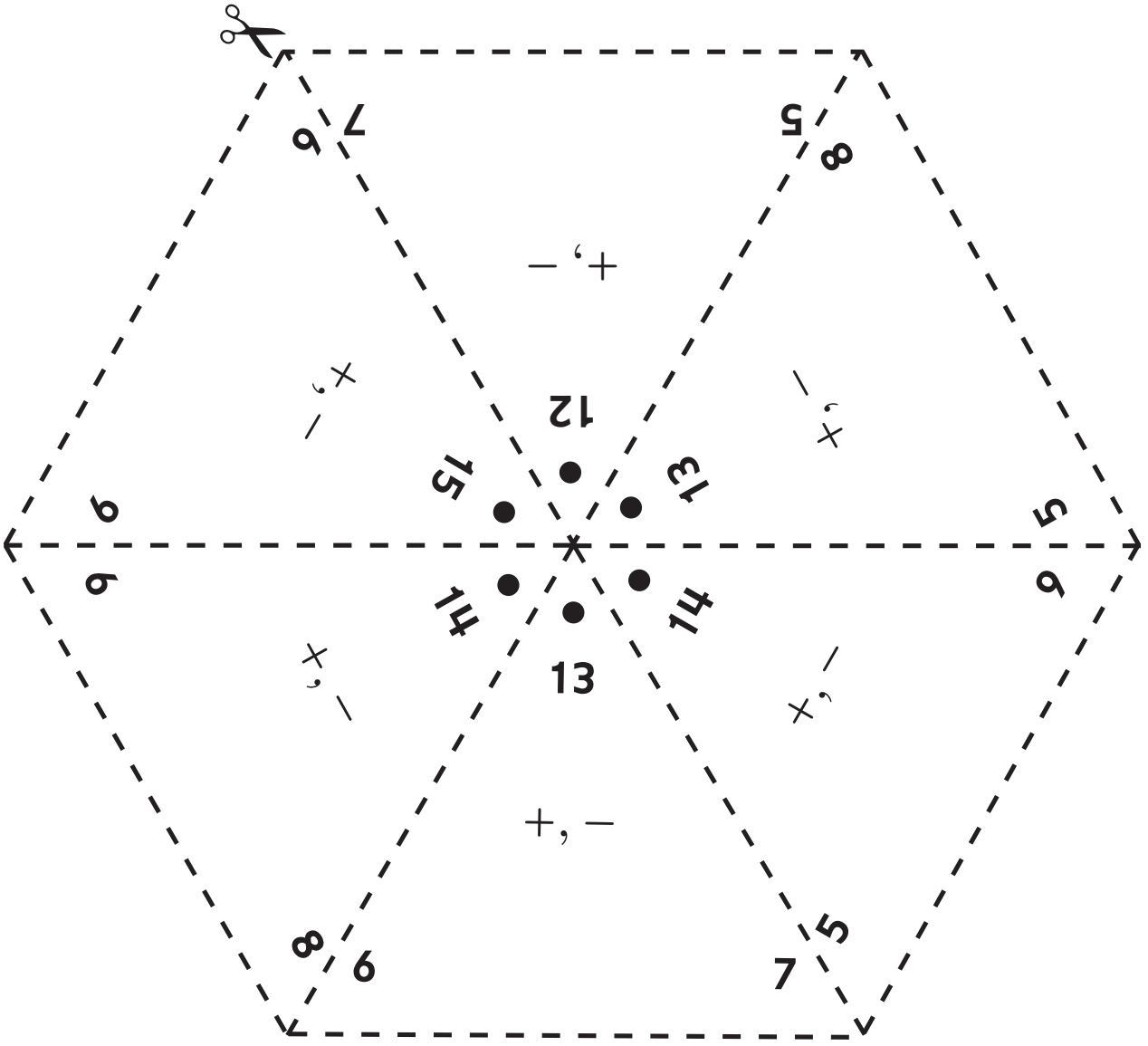
Fact Triangles 9

Home Link 7-8

NAME DATE

Cut out the triangles to use for addition and subtraction fact practice.



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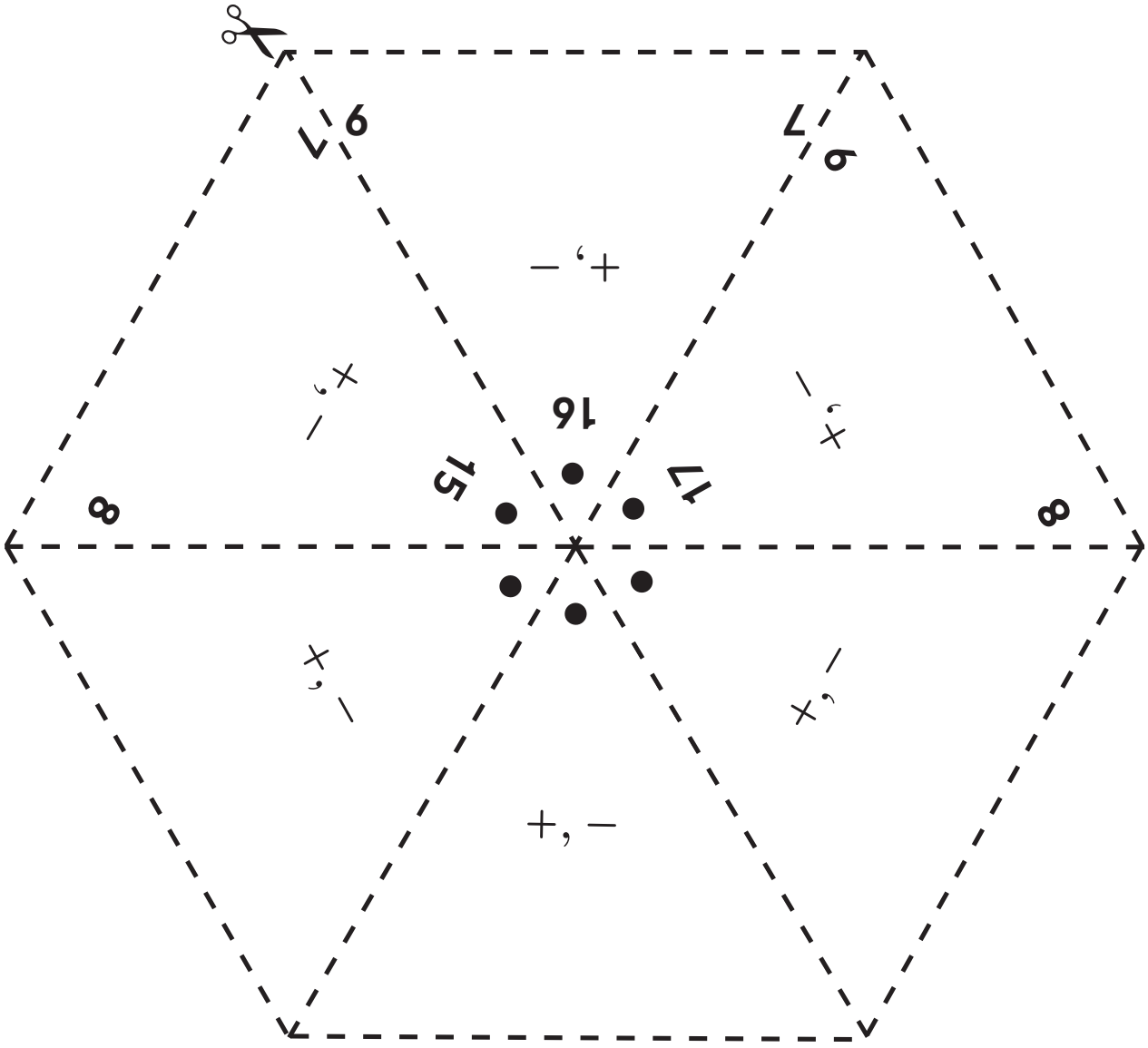
Fact Triangles 10

Lesson 7-8

NAME DATE



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"What's My Rule?"

Home Link 7-9

NAME DATE

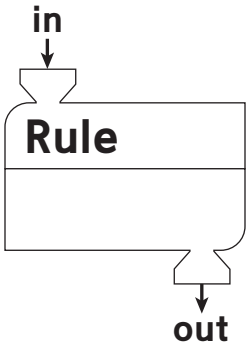
Family Note

Today your child talked about how mathematical rules can be used to help us solve other problems. After your child finds a rule for each problem below, name a few more *in* numbers and ask your child to use the rule to tell you what the *out* numbers would be.

Please return this Home Link to school tomorrow.

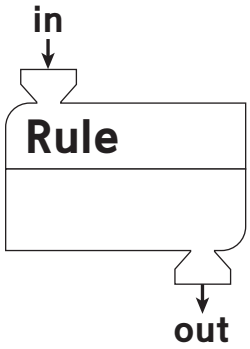
Find the rules.

1



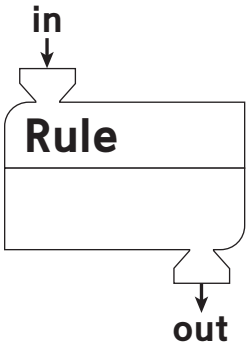
in	out
2	3
7	8
3	4
11	12

2



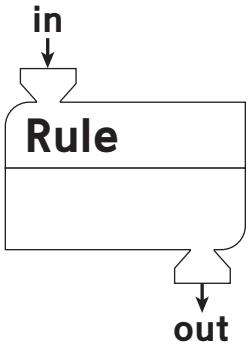
in	out
9	5
14	10
7	3
4	0

3



in	out
1	7
4	10
11	17
8	14

4



in	out
15	10
30	25
12	7
9	4

Practice

5 Cyrus started at 19 on his number line.
He hopped backward and landed on 10.
How many hops did Cyrus make? _____
Number model: _____

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Addition Facts: "What's My Rule?"

Home Link 7-10

NAME DATE

Family Note

In previous lessons, children solved "What's My Rule?" problems in which they were asked to find outputs and rules. Today they solved problems in which they had to find inputs. Have your child share strategies for finding the input numbers in Problem 1 below.

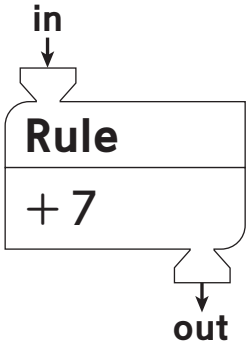
Also included in this Home Link are more Fact Triangles. This last set of Fact Triangles are all blanks. Fill them with whatever facts your child would like to practice more.

Please return this Home Link to school tomorrow.

MRB 56-58

Solve the "What's My Rule?" problems.
Complete the number sentences to check your answers.

1



in	out
7	
	13
0	
	17

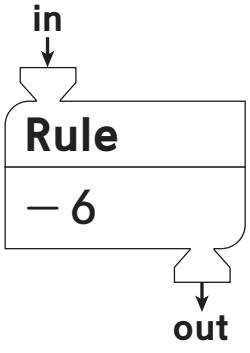
7 + 7 = ____

____ + 7 = 13

0 + 7 = ____

____ + 7 = 17

2



in	out
	7
	0
	9
	4

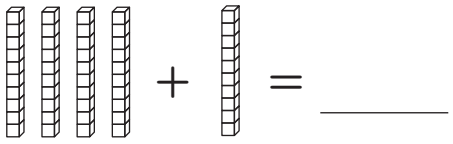
____ − 6 = 7

____ − 6 = 0

____ − 6 = 9

____ − 6 = 4

Practice

3  = ____

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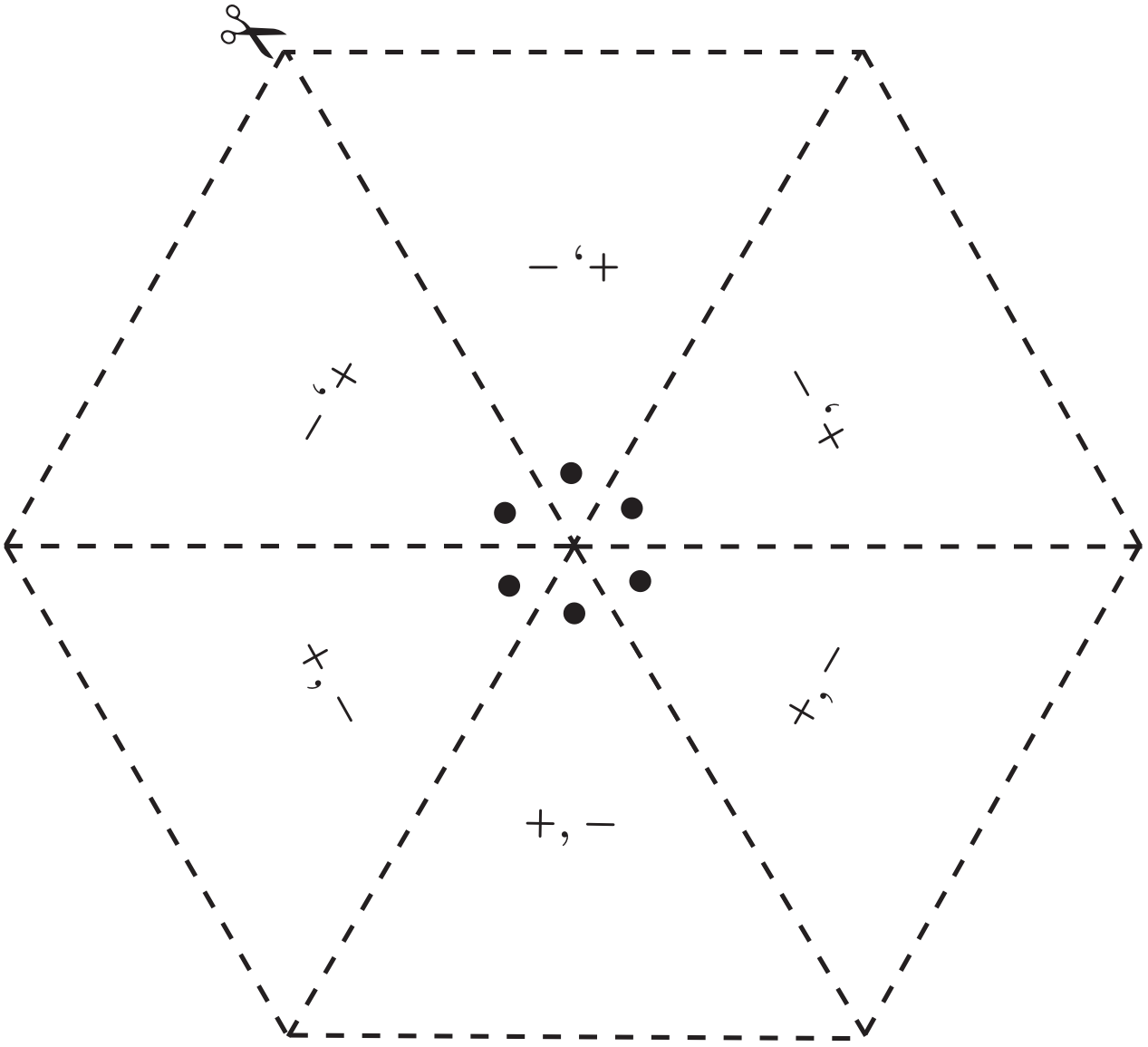
Blank Fact Triangles

Home Link 7-10

NAME DATE

Cut out the triangles for addition and subtraction fact practice. Fill them with whatever facts you need to practice more.



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Time on a Digital Clock

Home Link 7-11

NAME DATE

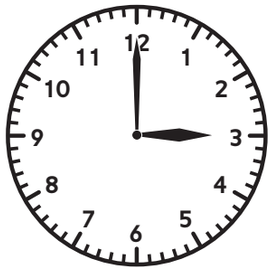
Family Note

In Unit 6, your child learned about the hour hand of a clock and how it moves as hours pass. Children told time on clocks that had only hour hands. In today's lesson, your child learned about the minute hand. Children told time to the hour on analog clocks with hour hands and minute hands. They also learned to read the time on digital clocks.

Please return this Home Link to school tomorrow.

Record the time.

MRB 105-106

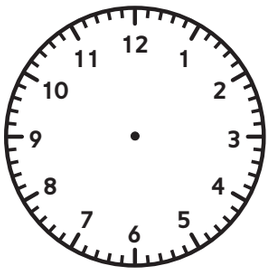
1 

:

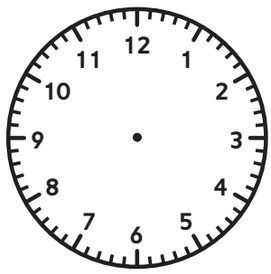
2 

:

Draw hands to show the time.

3 

2:00

4 

7:00

Practice

5 Write <, >, or =.

13 ☐ 42 106 ☐ 105 16 + 23 ☐ 39

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Program: **Everyday Math** | Component: **Math Masters** | Vendor: **Quad Graphics** | Grade: **1** | **PDF Pass 2**

Unit 8: Family Letter

Home Link 7-12

NAME DATE

Geometry

In Unit 7, children began to look carefully at attributes of 2-dimensional shapes. In Unit 8, they extend this work to include 3-dimensional shapes. They also explore building 2- and 3-dimensional shapes. They begin by building shapes with specific attributes, for example, shapes with 4 sides or shapes with 3 corners. Then they learn how to build larger shapes from smaller shapes. This is called *composing shapes*.

In Unit 8, children also learn how to make and name fractions of shapes. Children explore ways to divide shapes into 2 and 4 equal shares. They look at how these shares relate to the whole, and they name each share with a fraction name, including 1 half, 1 out of 2 parts, 1 fourth, 1 quarter, and 1 out of 4 parts. Children also name the whole, using language such as whole, 2 out of 2 parts, 2 halves, 4 out of 4 parts, 4 quarters, and 4 fourths. Children then build on their fraction work, applying their knowledge of fractions to telling time to the half hour. At this point, children will not be taught the notation typically used with fractions ($\frac{1}{2}$, $\frac{1}{4}$, $\frac{2}{4}$, and so on). This notation will be introduced in Grade 2.

Also in this unit, children continue using place value to add and subtract numbers, including adding and subtracting 10 mentally.

IMPORTANT: Please send a few everyday objects, such as paper towel tubes, balls, books, dice, party hats, or plastic perfume bottles, to school with your child to use as examples for learning about 3-dimensional shapes. Your child will explore these shapes throughout Unit 8.

Please keep this Family Letter for reference as your child works through Unit 8.

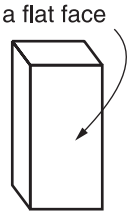
Vocabulary

Important terms in Unit 8:

edge A side where two faces meet.

equal shares Another name for equal parts. The result of dividing something into parts that are all the same size.

face A flat surface on a 3-dimensional figure.



fourth When a whole is divided into four equal shares, one-fourth is one of those shares. Also called a *quarter, 1 fourth,* or *1 out of 4 equal shares*.

half When a whole is divided into two equal shares, one-half is one of those shares. Also called *1 half* or *1 out of 2 equal shares*.

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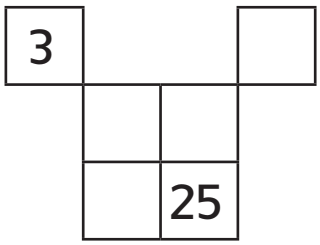
half past Thirty minutes after a specific hour. For example, 6:30 is "half past six."

number-grid puzzle
In *Everyday Mathematics,* a piece of a number grid in which some of the numbers are missing. Children use number-grid puzzles to practice place-value concepts.

whole An entire object or collection of objects.



A number-grid puzzle

Do-Anytime Activities

To work with your child on the concepts taught in this unit and in previous units, try these activities:

1. Continue to work on addition and subtraction facts using the Fact Triangles introduced in Unit 7 and games from *My Reference Book*.
2. Encourage your child to build with blocks. Talk about how the pieces fit together to form new shapes and patterns.
3. Have your child tell you the time to the hour and half hour.

Building Skills through Games

Your child will play these games and others in Unit 8:

I Spy

One player describes a shape by naming its attributes. For example, "I spy something with 4 sides." The player continues naming attributes until someone guesses the shape.

Make My Design

Two players start with the same pattern blocks. Player 1 makes a design that Player 2 cannot see. Player 1 describes it to Player 2, who then tries to make the design. Then they check whether the designs are the same. Players switch roles and play again.

Time Match

A player turns over two cards with pictures of analog or digital clocks on them. If the times are not the same, the cards are turned back over. If the cards show the same time, the player keeps the cards. The player with the most cards wins.

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As You Help Your Child with Homework

As your child brings home assignments, you may want to go over the instructions together, clarifying them as necessary. The answers listed below will guide you through the Home Links for this unit.

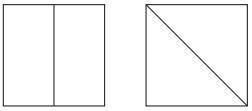
Home Link 8-1

1. Answers vary.

2. <; =; >

Home Link 8-2

1. Sample answers:

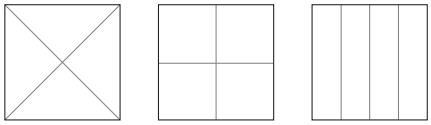


2. Sample answers: half; 1 out of 2 equal shares; 1 half

3. 13; 67

Home Link 8-3

1. Sample answers:

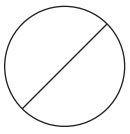


2. Sample answers: quarter; fourth; one out of four equal shares; 1 fourth; 1 quarter

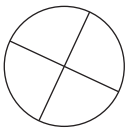
3. 5

Home Link 8-4

1. Sample answers: half, 1 out of 2 parts, one-half, 1 half



2. Sample answers: quarter, fourth, 1 out of 4 parts, one-fourth, one-quarter, 1 fourth



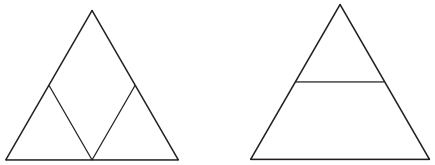
3. 1 out of 2 equal parts

4. 7

5. 8

Home Link 8-5

1. Sample answers:



2. Answers vary.

Home Link 8-6

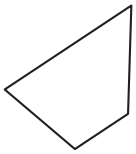
1., 3., 5. Answers vary.

2. 6

4. Square

6. The answers to Problems 2 and 4

7. Sample answer:



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Home Link 8-7

1. Sample answer: I know 6 + 6 = 12, so I add 1 more to get 6 + 7 = 13.

2. Sample answer: I can take 4 away from 7 and add that to the 6 to make 10. I have 3 left, so 10 + 3 = 13. 13 is the answer.

3. Answers vary.

4. 7; 12 − 7 = 5

Home Link 8-8

1. 5

2. 7

3. 2:30

4. 9:30

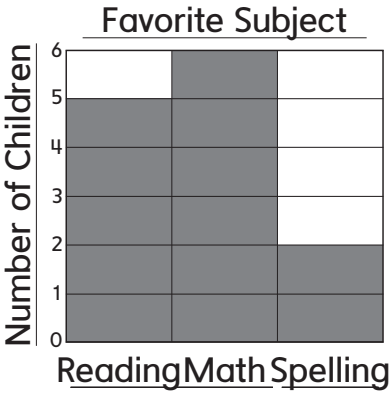
5. Answers vary.

6. Answers vary.

7. 7; Sample number model: 7 = 3 + 4

Home Link 8-9

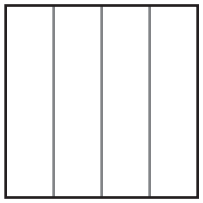
1.



2. 13 children

3. 4 children

4. Sample answer:



Home Link 8-10

1.

43
53
63
73
83

2.

23	24	25
33		
43		
53		
63	64	
73		

3.

	59	
	69	
78	79	80
88	89	90

4.

14	15	16	17	18
24				28
34		36		38
44				48
54	55	56	57	58

5.

	57	58	59	60
		68	69	70
		78	79	80
	87			90
96				

6. 40

Home Link 8-11

1–2. Answers vary.

3. 14; 4 + 2 + 8 = 14

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