



GRADE 3 SUPPLEMENT

Set A2 Number & Operations: Basic Multiplication & Division

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Skills & Concepts

- ★ use multiplication arrays to solve problems
- ★ apply commutative, associative, distributive, identity, and zero properties to solve multiplication problems
- ★ recall basic multiplication facts through 12×12 and the corresponding division facts
- ★ multiply any number from 11 to 19 by single-digit numbers using the distributive property and appropriate place value concepts
- ★ solve and create word problems that match multiplication or division equations
- ★ analyze the result of multiplying odd and even numbers has on the outcome

Bridges in Mathematics Grade 3 Supplement

Set A2 Numbers & Operations: Basic Multiplication & Division

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Bridges in Mathematics is a standards-based K–5 curriculum that provides a unique blend of concept development and skills practice in the context of problem solving. It incorporates the Number Corner, a collection of daily skill-building activities for students.

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Set A2 ★ Activity 1



ACTIVITY

Multiplying by Eleven

Overview

Students explore various strategies for multiplying by 11, and then they complete a related worksheet.

Skills & Concepts

- ★ use multiplication arrays to solve problems
- ★ apply commutative, associative, distributive, identity, and zero properties to solve multiplication problems

You'll need

- ★ Multiplying by Eleven (page A2.4, class set)
- ★ overhead base 10 pieces
- ★ base 10 pieces (1 set for every pair of students)

Instructions for Multiplying by Eleven

1. Tell students you are going to show them a multiplication problem. Ask them to think privately about the answer and give the thumbs up signal when they have it. Then write 2×11 on the board or overhead. When most thumbs are up, have students pair-share their solutions and strategies, and then invite volunteers to share with the class.

Olivia *I got 22. I know that 2×10 is 20, and so 2×11 would just be 2 more. That's 22.*

Tag *I added $11 + 11$. It's 22.*

Hayley *I already know my 11s from my big sister. You just get 2 of the same number, so 2×11 is 22.*

2. Now give each pair of students a set of base 10 pieces. Explain that you're going to show them another multiplication problem. This time, you want them to work together to build it with the pieces, even if they already know the answer. Write 3×11 on the board and give them a minute to work. Most likely, some will finish much more quickly than others. Invite some of the early finishers to the overhead to share their strategies.

Teacher *Trevon, you and Thayne really finished quickly. Would you two be willing to come up to the overhead to show us how you built 3×11 ?*

Trevon *First we started using the little squares. We were going to make 3 piles of 11. But then we saw that we could use the strips, so we did it like this.*

Thayne *You can see the answer is 33 because it's 10, 20, 30, and then 3 more.*



Dani *The same thing happened with us! We were starting to make a 3×11 rectangle and then we saw that we could use the strips instead of having to make the whole thing with little squares.*

Activity 1 Multiplying by Eleven (cont.)

Angelica See? It's still a 3×11 , but it's way quicker to make it with the strips. Then you don't have to put 33 little squares together.

3. If none of your students share a strategy that involves using the 10-strips instead of individual units, show it yourself. Then ask student pairs to use the strategy to build 4×11 and 5×11 arrays.



4. List all the combinations you've covered so far, including 1×11 . Ask students to supply the answer for each as you list it. What observations can they make about these facts?

$$1 \times 11 = 11$$

$$2 \times 11 = 22$$

$$3 \times 11 = 33$$

$$4 \times 11 = 44$$

$$5 \times 11 = 55$$

Students It's like Hayley said! The answer is just 2 of the same number every time.

Every answer is 11 more, like $22 + 11$ is 33, and $33 + 11$ is 44.

It's kind of like counting by 10s.

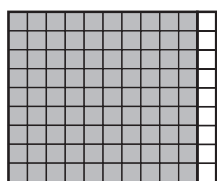
5. Write 9×11 , 10×11 , and 11×11 on the board. Ask students to make conjectures about the answers based on the observations they just shared.

Students 9×11 will be 99 for sure.

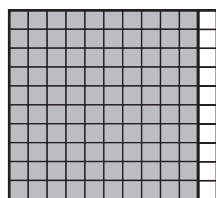
10×11 will probably be 101, or maybe 111.

Maybe 11×11 will be 1111. That one's hard.

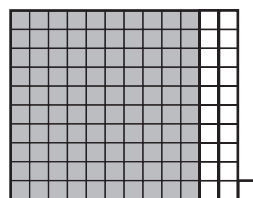
6. Now ask student pairs to build all 3 combinations. Encourage them to trade for mats when possible; otherwise, they'll soon run out of strips.



$$9 \times 11$$

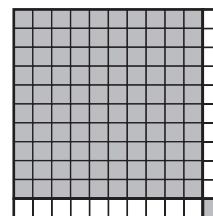


$$10 \times 11$$



$$11 \times 11$$

(Ramon's way)



$$11 \times 11$$

(Jade's way)

You may see a variety of strategies, especially for 11×11 . Invite volunteers to share their thinking at the overhead.

Activity 1 Multiplying by Eleven (cont.)

Ramon *After we did 10×11 , we just added on 1 more strip and 1 more little square. In all, it made 121.*

Jade *We decided to make an 11 by 11 array. It worked really great because you can make it into a square. It takes a mat, 2 strips, and a unit, so that's 121.*

7. Give each student a copy of Multiplying by Eleven. Review the sheet together. Encourage students to share and compare their strategies and solutions as they work and when they're finished.

NAME _____

DATE _____

Multiplying by Eleven

1 Solve the problems below. Use your base 10 pieces to help if you want.

$3 \times 11 = \underline{\quad}$

$11 \times 5 = \underline{\quad}$

$7 \times 11 = \underline{\quad}$

$$\begin{array}{r} 4 \\ \times 11 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ \times 11 \\ \hline \end{array}$$

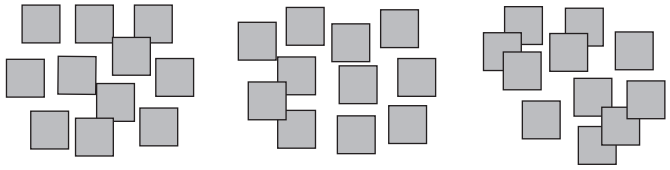
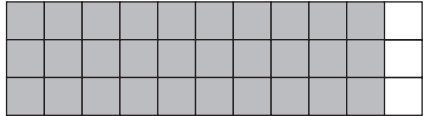
$$\begin{array}{r} 10 \\ \times 11 \\ \hline \end{array}$$

$$\begin{array}{r} 11 \\ \times 8 \\ \hline \end{array}$$

$$\begin{array}{r} 11 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ \times 11 \\ \hline \end{array}$$

2 Zack used his base 10 pieces to build this picture of 3×11 . Jon used his base 10 pieces to build it a different way.

Zack's Way	Jon's Way
	
_____	_____

a Write a number sentence below the picture in each box to show the total number of units.

b Which way do you like better? Why?

3 Jenna is starting a sticker book. There are 5 rows of stickers on each page, and each row has 11 stickers. So far, she's filled 2 pages. How many stickers is that in all?

Use numbers, pictures, and/or words to solve the problem. Show all of your work on the back of this sheet.

Set A2 ★ Activity 2



ACTIVITY

Multiplying by Twelve

Overview

Students explore various strategies for multiplying by 12, and then complete a related worksheet.

Skills & Concepts

- ★ use multiplication arrays to solve problems
- ★ apply commutative, associative, distributive, identity, and zero properties to solve multiplication problems

You'll need

- ★ Multiplying by Twelve (page A2.8, class set)
- ★ overhead base 10 pieces
- ★ base 10 pieces (1 set for every pair of students)

Instructions for Multiplying by Twelve

1. Tell students you are going to show them a multiplication problem. Ask them to think privately about the answer and give the thumbs up signal when they have it. Then write 2×12 on the board or overhead. When most thumbs are up, have students pair-share their solutions and strategies, and then invite volunteers to share with the class.

Casey I got 24. I know that 2×10 is 20, and then it's 4 more for the 2×2 .

Rosa I added $12 + 12$. It's 24.

2. Now give each pair of students a set of base 10 pieces. Explain that you're going to show them another multiplication problem. This time, you want them to work together to build it with the pieces, even if they already know the answer. Write 3×12 on the board and give them a minute to work. Most likely, some will finish much more quickly than others. Invite some of the early finishers to the overhead to share their strategies.

Teacher Brisa, you and Angelica finished very quickly. Would you two be willing to come up to the overhead to show us how you built 3×12 ?

Brisa First we started using the little squares. We were going to make 3 piles of 12. But then we saw that we could use the strips, so we did it like this.

Angelica You can see the answer is 36 because it's 10, 20, 30, and then 6 more.

Ray That's what we got too. We were starting to make a 3×12 rectangle and then we saw that we could use the strips instead of having to make the whole thing with little squares.

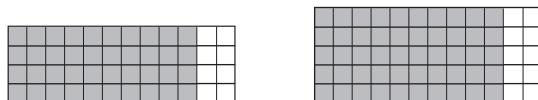


Activity 2 Multiplying by Twelve (cont.)

Austin See? It's still a 3×12 , but it's way quicker to make it with the strips. Then you don't have to put 36 little squares together.



3. If none of your students share a strategy that involves using the 10-strips instead of individual units, show it yourself. Then ask student pairs to use the strategy to build 4×12 and 5×12 arrays.



4. List all the combinations you've covered so far, including 1×12 . Ask students to supply the answers as you write each. What observations can they make about these facts?

$$1 \times 12 = 12$$

$$2 \times 12 = 24$$

$$3 \times 12 = 36$$

$$4 \times 12 = 48$$

$$5 \times 12 = 60$$

Students It adds 12 more each time because $12 + 12$ is 24, and $24 + 12$ is 36.

Every answer starts with the same number, like 1×12 is 12, 2×12 is 24, 3×12 is 36. It works until you get up to 5×12 .

All the answers are even numbers.

5. Continue to have students build the 12's facts up through 12×12 . Ask them to predict the answer before they build each combination. List them on the board as you go so that students can see the entire set when you're finished.

6. Now have students brainstorm a list of things that come in 12's. Record their ideas on the whiteboard next to the list of facts.

$1 \times 12 = 12$	$7 \times 12 = 84$	Things that come in 12s
$2 \times 12 = 24$	$8 \times 12 = 96$	
$3 \times 12 = 36$	$9 \times 12 = 108$	
$4 \times 12 = 48$	$10 \times 12 = 120$	
$5 \times 12 = 60$	$11 \times 12 = 132$	
$6 \times 12 = 72$	$12 \times 12 = 144$	
		<ul style="list-style-type: none"> • eggs • donuts • inches on a ruler • cookies • numbers on the clock • months in the year • new pencils • anything in a dozen

Activity 2 Multiplying by Twelve (cont.)

7. Pose some related story problems. Ask students to listen carefully and give the thumbs up sign when they have the answer. Here are a few examples:

- Jaret's dad bought 3 dozen eggs at the store yesterday. How many eggs was that in all?
- Mrs. Benson bought 120 new pencils for her third graders. There were 12 in each box. How many boxes did she buy?
- Lateva's sister is 48" tall. How many feet is that?
- Mr. Hernandez made 84 cookies for the bake sale. He put them in bags of a dozen. How many bags did he have when he was finished?
- The gym teacher went to the sporting goods store to buy 3 dozen tennis balls. The store was having a special—2 extra balls with every dozen. How many balls did she have in her bag when she left the store?

8. Give each student a copy of Multiplying by Twelve. Review the sheet together. Encourage students to share and compare their strategies and solutions as they work and when they're finished.



INDEPENDENT WORKSHEET

See Set A2 Independent Worksheets 1–8 for more multiplication practice.

NAME _____

DATE _____

Multiplying by Twelve

1 Solve the problems below. Use your base 10 pieces to help if you want.

$4 \times 12 = \underline{\quad}$

$12 \times 2 = \underline{\quad}$

$5 \times 12 = \underline{\quad}$

$$\begin{array}{r} 3 \\ \times 12 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ \times 12 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ \times 12 \\ \hline \end{array}$$

$$\begin{array}{r} 12 \\ \times 7 \\ \hline \end{array}$$

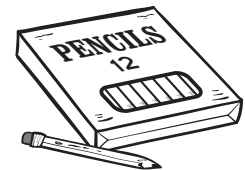
2 Use numbers, pictures, and/or words to solve each of the problems below. Show all of your work. Use the back of this sheet if you need more room.

a Mrs. Green bought granola bars for the third grade field trip. There were 12 bars in a box. She bought 6 boxes and then found 4 more bars in her cupboard at school. How many bars did she have in all?



b There were 34 students in Mrs. Green's class. Were there enough granola bars for each of them to have 2?

c Mr. Lee got 8 dozen pencils from the office. So far, he's given each of his third graders 3 pencils. He has 27 students. How many pencils does he still have left?



CHALLENGE

3 Write your own story problem about 12's on another piece of paper. Solve it and then tape a flap over your work. Give it to someone else in your class to solve.

NAME _____

DATE _____

Set A2 ★ Independent Worksheet 1



INDEPENDENT WORKSHEET

Multiplying & Dividing on the Number Line

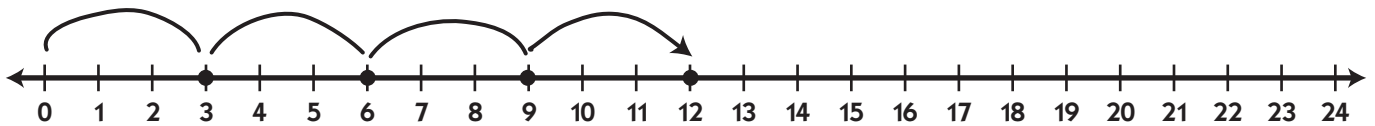


1 Marina the Frog says you can solve 3×5 on a number line. She says if you start at zero and take 3 equal jumps of 5, you will land on the answer. Here is her picture.



- a** Did Marina get the right answer to the problem?
b Why did she start at 0 instead of 1?

2 Marina made another number line picture.



a Which multiplication problem is she trying to solve? (circle one)

2×3

4×4

4×3

2×6

b Why did you circle that one?

3 Here is another number line picture from Marina.



a Write a multiplication equation to go with Marina's picture.

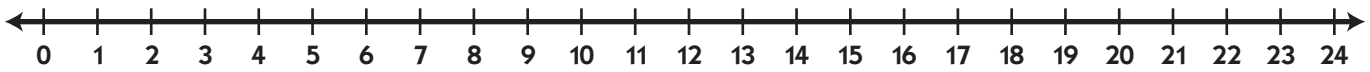
$$\underline{\hspace{2cm}} \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

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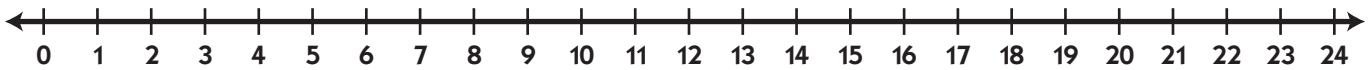
Independent Worksheet 1 Multiplying & Dividing on the Number Line (cont.)

4 Draw on the number lines below to show and solve multiplication problems a, b, and c.

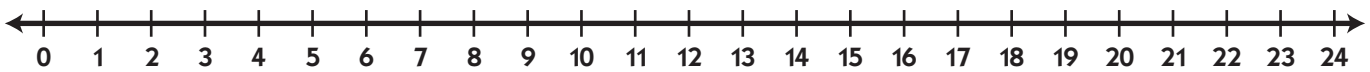
a $3 \times 4 = \underline{\hspace{2cm}}$



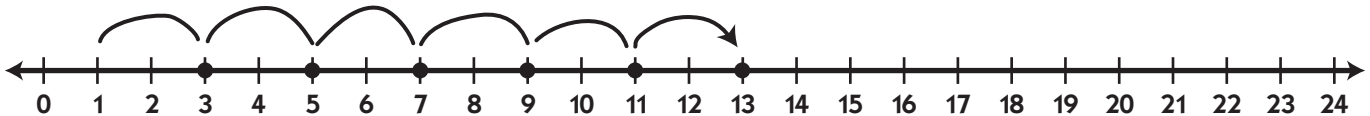
b $5 \times 2 = \underline{\hspace{2cm}}$



c $3 \times 7 = \underline{\hspace{2cm}}$

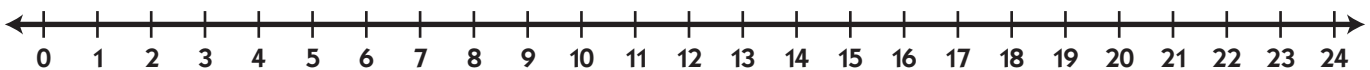


5 Catalina the Cat said, "I tried your idea, Marina. It doesn't work. Here is my picture. I know that 6×2 is 12, but I got 13 with your idea!"



a Why did Catalina get the wrong answer to 2×6 with her picture?

b Use the number line to solve this word problem. Then write an equation to match. DJ Jumpy Frog started at zero. He made 6 jumps of 3. What number did he land on?



$\underline{\hspace{2cm}} \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

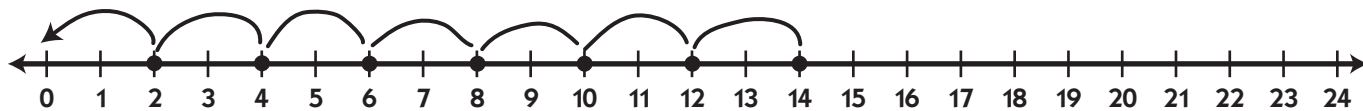
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NAME _____

DATE _____

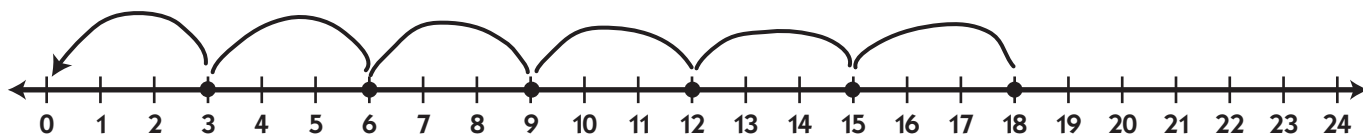
Independent Worksheet 1 Multiplying & Dividing on the Number Line (cont.)

6 DJ Jumpy Frog says you can also use the number line to show and solve division problems. He says to solve $14 \div 2$, you start at 14. Then you take equal hops of 2 all the way back to 0. If you count the number of hops, you get the answer.



- a** How many hops did it take DJ to get back to 0?
b Did he get the right answer to $14 \div 2$?
c Why did he take hops of 2 instead of 3?

7 Here is another number line picture from DJ.

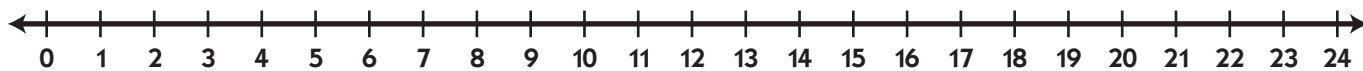


- a** Write a division equation to go with DJ's picture.

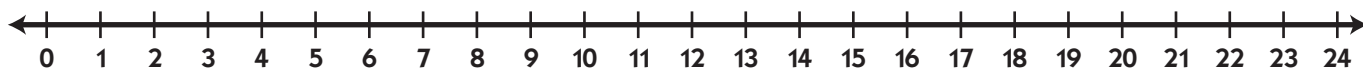
$$\underline{\hspace{2cm}} \div \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

8 Use the number lines below to show and solve division problems a and b.

a $12 \div 3 = \underline{\hspace{2cm}}$



b $24 \div 4 = \underline{\hspace{2cm}}$



Independent Worksheet 2 Multiplying Odd & Even Numbers (cont.)

MULTIPLICATION SENTENCE	EVEN PRODUCT (POINTS FOR PARTNER A)	EVEN PRODUCT (POINTS FOR PARTNER A)
Total Score		

- 2** Who won the game?
- 3** Do you think this is a fair game? Why or why not?

NAME _____

DATE _____

Independent Worksheet 2 Multiplying Odd & Even Numbers (cont.)

4 Fill in the multiplication table below. Some of the products are already filled in for you.

×	1	2	3	4	5	6
1		2				
2						12
3			9			
4	4					
5		10				
6					30	

5 After you fill in the whole chart, color the boxes with even products yellow. Color the boxes with odd products red.

6 Are there more even or odd products? _____

7 What happens when you multiply an even number times an even number? Use numbers, labeled sketches, and words to show.

8 What happens when you multiply an odd number times an odd number? Use numbers, labeled sketches, and words to show.

9 What happens when you multiply an odd number times an even number? Use numbers, labeled sketches, and words to show.

NAME _____

DATE _____

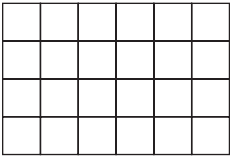
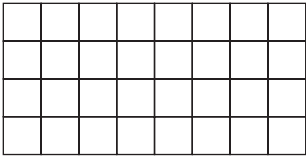
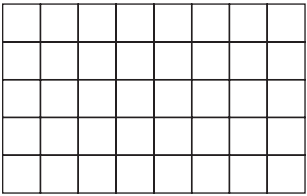
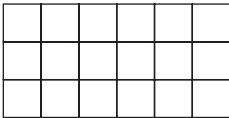
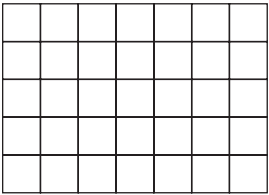
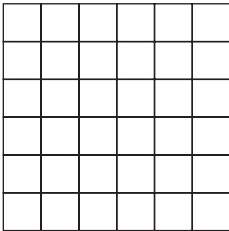
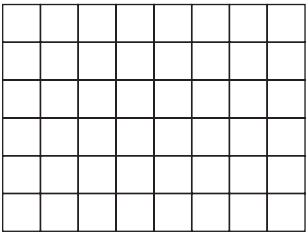
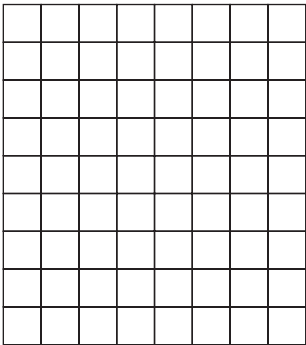
Set A2 ★ Independent Worksheet 3



INDEPENDENT WORKSHEET

An Array of Fact Families

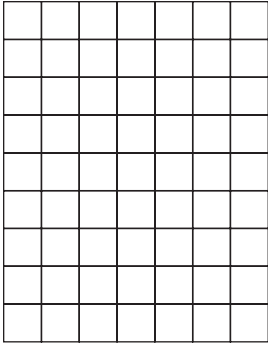
Write the fact family for each array. The first one has been done for you.

<p>example</p>  $4 \times 6 = 24$ $6 \times 4 = 24$ $24 \div 6 = 4$ $24 \div 4 = 6$	<p>1</p> 
<p>2</p> 	<p>3</p> 
<p>4</p> 	<p>5</p> 
<p>6</p> 	<p>7</p> 

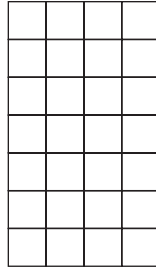
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Independent Worksheet 3 An Array of Fact Families (cont.)

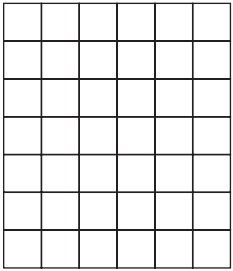
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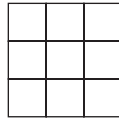
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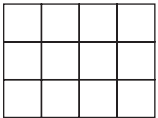
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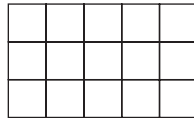
11



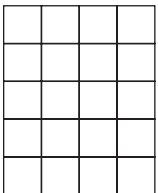
12



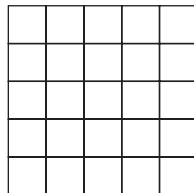
13



14



15



NAME _____

DATE _____

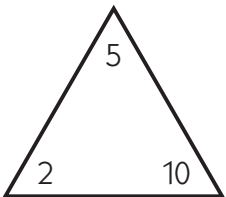
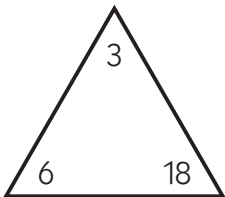
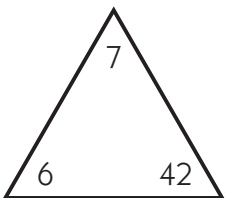
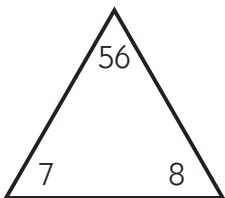
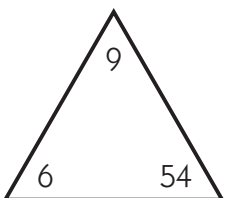
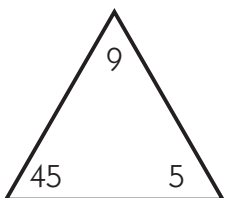
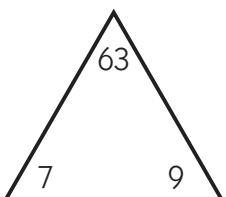
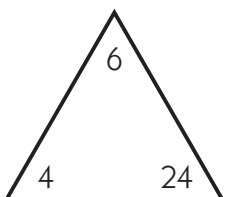
Set A2 ★ Independent Worksheet 4



INDEPENDENT WORKSHEET

Fact Family Triangles

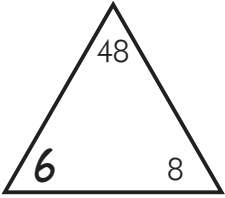
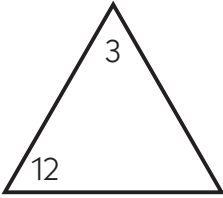
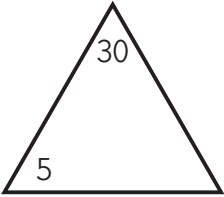
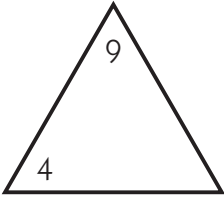
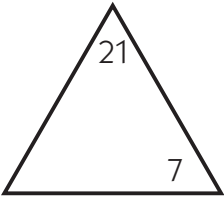
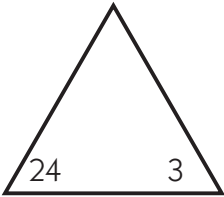
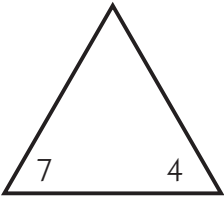
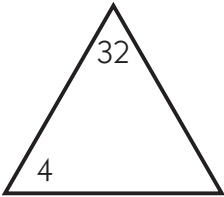
1 2×4 and 4×2 are 8. $8 \div 2 = 4$ and $8 \div 4 = 2$. Can you see how 2, 4, and 8 are related? That's why they're called a fact family. Each of the triangles below shows a fact family. Write 2 multiplication and 2 division facts for each family. The first one has been done for you.

<p>example</p>  $2 \times 5 = 10$ $5 \times 2 = 10$ $10 \div 2 = 5$ $10 \div 5 = 2$	<p>a</p> 
<p>b</p> 	<p>c</p> 
<p>d</p> 	<p>e</p> 
<p>f</p> 	<p>g</p> 

(Continued on back.)

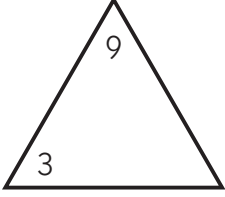
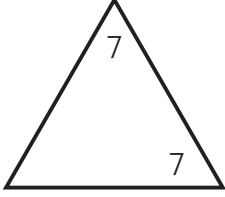
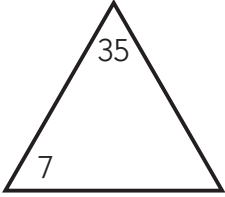
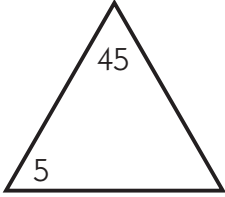
Independent Worksheet 4 Fact Family Triangles (cont.)

2 Several Fact Families went to the amusement park. One member of each family got lost. Write in the missing member of each family. The first one has been done for you.

<p>example</p>  <p>Write in 6 because $6 \times 8 = 48$</p>	<p>a</p>  <p>Hint: 3 times what equals 12?</p>
<p>b</p> 	<p>c</p> 
<p>d</p> 	<p>e</p> 
<p>f</p> 	<p>g</p> 

(Continued on next page.)

Independent Worksheet 4 Fact Family Triangles (cont.)

h 	i 
j 	k 

**CHALLENGE**

3 Nine of the fact families whose members are all less than 100 have “twins” or two family members that are the same number. One of these families is $6 \times 6 = 36$ and $36 \div 6 = 6$. Another is $3 \times 3 = 9$ and $9 \div 3 = 3$. List the other fact families whose members are less than 100 that have twins. One of these families has triplets—which one?

NAME _____

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Set A2 ★ Independent Worksheet 5



INDEPENDENT WORKSHEET

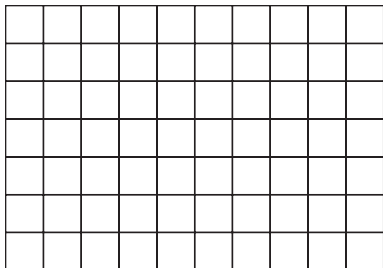
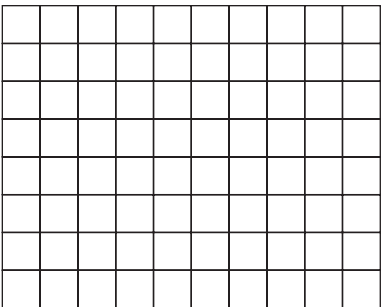
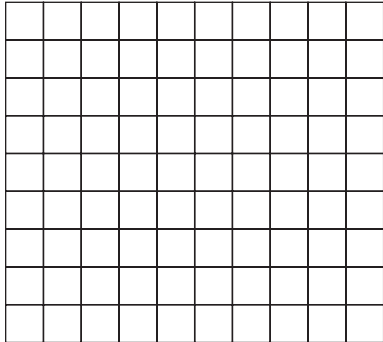
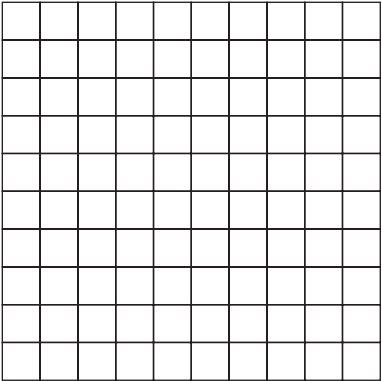
Fact Families for the Tens

Write the fact family for each array. The first one has been done for you.

<p>example</p> <div style="display: flex; align-items: flex-start;"> <div style="border: 1px solid black; width: 20px; height: 20px; margin-right: 5px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; margin-right: 5px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; margin-right: 5px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; margin-right: 5px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; margin-right: 5px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; margin-right: 5px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; margin-right: 5px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; margin-right: 5px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; margin-right: 5px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; margin-right: 5px;"></div> </div> <div style="margin-left: 20px;"> $1 \times 10 = 10$ $10 \times 1 = 10$ $10 \div 1 = 10$ $10 \div 10 = 1$ </div>	<p>a</p> <div style="border: 1px solid black; width: 100px; height: 20px; margin-bottom: 5px;"></div> <div style="border: 1px solid black; width: 100px; height: 20px;"></div>
<p>b</p> <div style="border: 1px solid black; width: 100px; height: 20px; margin-bottom: 5px;"></div> <div style="border: 1px solid black; width: 100px; height: 20px; margin-bottom: 5px;"></div> <div style="border: 1px solid black; width: 100px; height: 20px;"></div>	<p>c</p> <div style="border: 1px solid black; width: 100px; height: 20px; margin-bottom: 5px;"></div> <div style="border: 1px solid black; width: 100px; height: 20px; margin-bottom: 5px;"></div> <div style="border: 1px solid black; width: 100px; height: 20px; margin-bottom: 5px;"></div> <div style="border: 1px solid black; width: 100px; height: 20px;"></div>
<p>d</p> <div style="border: 1px solid black; width: 100px; height: 20px; margin-bottom: 5px;"></div> <div style="border: 1px solid black; width: 100px; height: 20px; margin-bottom: 5px;"></div> <div style="border: 1px solid black; width: 100px; height: 20px; margin-bottom: 5px;"></div> <div style="border: 1px solid black; width: 100px; height: 20px;"></div>	<p>e</p> <div style="border: 1px solid black; width: 100px; height: 20px; margin-bottom: 5px;"></div> <div style="border: 1px solid black; width: 100px; height: 20px; margin-bottom: 5px;"></div> <div style="border: 1px solid black; width: 100px; height: 20px; margin-bottom: 5px;"></div> <div style="border: 1px solid black; width: 100px; height: 20px; margin-bottom: 5px;"></div> <div style="border: 1px solid black; width: 100px; height: 20px;"></div>

(Continued on back.)

Independent Worksheet 5 Fact Families for the Tens (cont.)

f 	g 
h 	i 

2 Describe the pattern for multiplying any number by 10.



CHALLENGE

3 Describe the pattern for multiplying any number by 100.

4 Describe the pattern for multiplying any number by 1000.

NAME _____

DATE _____

Set A2 ★ Independent Worksheet 6



INDEPENDENT WORKSHEET

Multiplying by Elevens & Twelves

1 Sam and Terra built some multiplication arrays with base 10 pieces. For each of their arrays:

- label the dimensions.
- write 2 different number sentences to show how many units there are.

<p>example</p> <div style="text-align: center; margin: 20px 0;"> </div> <p>Number sentences</p> $11 + 11 + 11 + 11 = 44$ $4 \times 11 = 44$	<p>a</p> <div style="text-align: center; margin: 20px 0;"> </div> <p>Number sentences</p>
<p>b</p> <div style="text-align: center; margin: 20px 0;"> </div> <p>Number sentences</p>	<p>c</p> <div style="text-align: center; margin: 20px 0;"> </div> <p>Number sentences</p>

(Continued on back.)

Independent Worksheet 6 Multiplying by Elevens & Twelves (cont.)

2 Holly and Micah used dimes and pennies to show some multiplication facts. Write a multiplication sentence to show how much money is shown in each arrangement.

example



Multiplication sentence

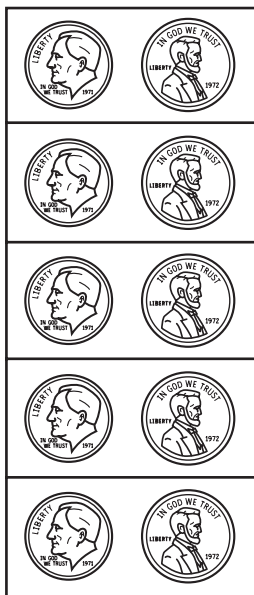
$$2 \times 12 \text{¢} = 24 \text{¢}$$

a



Multiplication sentence

b



Multiplication sentence

c



Multiplication sentence

(Continued on next page.)

Independent Worksheet 6 Multiplying by Elevens & Twelves (cont.)

3 Use dimes and pennies or base 10 pieces to build each of the multiplication facts below. Sketch and label your work.

a $7 \times 11 =$ _____	b $4 \times 12 =$ _____
--------------------------------	--------------------------------

4 Use numbers, pictures, and/or words to solve each of the problems below. Show all of your work. Attach another piece of paper if you need more room.

a King School is holding a bake sale. Jose's mom brought 2 dozen chocolate chip cookies, and Jana's dad brought 3 dozen peanut butter cookies. The helpers took the cookies out of their bags and put them on plates. They put 10 on every plate. How many plates did they need?

b Siri was helping his mom plant a garden. They planted 7 rows of lettuce. Four of the rows had 11 lettuce plants. Three of the rows had 12 lettuce plants. How many lettuce plants did they plant in all?

NAME _____

DATE _____

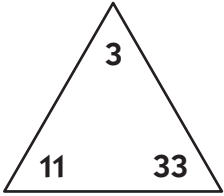
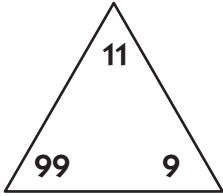
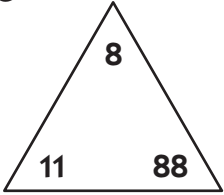
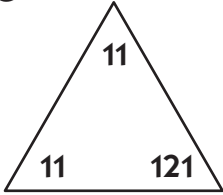
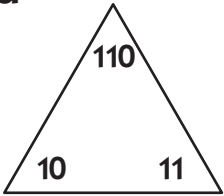
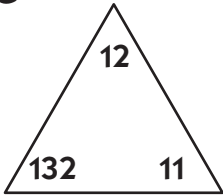
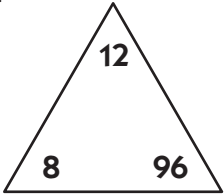
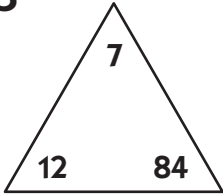
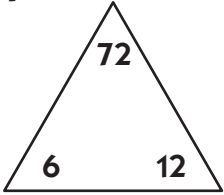
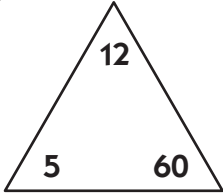
Set A2 ★ Independent Worksheet 7



INDEPENDENT WORKSHEET

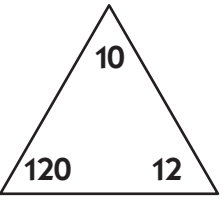
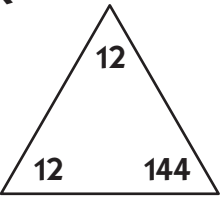
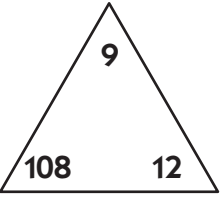
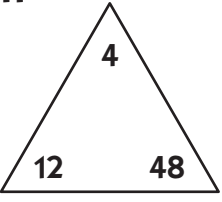
Meet the Elevens & Twelves Families

1 Write 2 multiplication and 2 division facts for each family. The first one has been done for you.

<p>example</p>  $3 \times 11 = 33$ $11 \times 3 = 33$ $33 \div 3 = 11$ $33 \div 11 = 3$	<p>a</p> 
<p>b</p> 	<p>c</p> 
<p>d</p> 	<p>e</p> 
<p>f</p> 	<p>g</p> 
<p>h</p> 	<p>i</p> 

(Continued on back.)

Independent Worksheet 7 Meet the Elevens & Twelves Families (cont.)

<p>j</p> 	<p>k</p> 
<p>l</p> 	<p>m</p> 

2 Fill in the multiplication and division tables below. Some of the answers have been filled in for you.

×	2	5	7	3	1	4	8	6	10	11	9	12
11	22					44					99	

÷	55	88	132	22	77	121	11	33	99	44	110	66
11		8					1					6

×	2	5	7	3	1	4	8	6	10	11	9	12
12		60			12				120			

÷	60	12	120	24	96	108	36	144	48	84	132	72
12		1		2						7		

NAME _____

DATE _____

Set A2 ★ Independent Worksheet 8



INDEPENDENT WORKSHEET

The Frog Jumping Contest

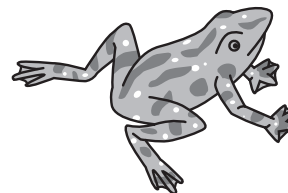
Today is the big frog jumping contest! Help Marina, DJ, and the other frogs solve some jumping problems.

- Use numbers, words, and/or labeled sketches to solve the problems.
- Show all your work.
- Write your answer on the line.
- Write an equation to match the problem.

1 Marina's first jump was 6 feet long. There are 12 inches in a foot. How many inches did she jump?

Marina jumped _____ inches.

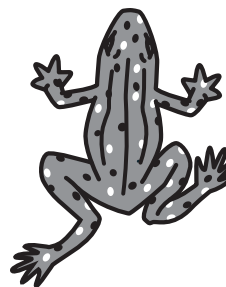
Matching equation: _____



2 DJ's first jump was 2 yards long. There are 36 inches in a yard. How many inches did he jump?

DJ jumped _____ inches.

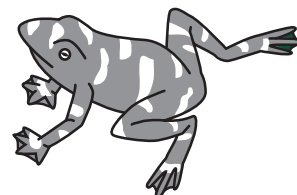
Matching equation: _____



3 Hooper's first jump was 84 inches long. How many feet did he jump?

Hooper jumped _____ feet.

Matching equation: _____



(Continued on back.)

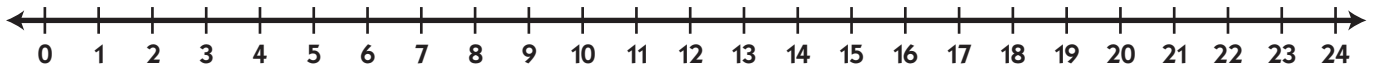
Independent Worksheet 8 The Frog Jumping Contest (cont.)

4 In the second round, DJ jumped 4 feet. Hooper jumped 65 inches. Which frog jumped farther? How many inches farther did that frog jump?

_____ jumped _____ inches farther.

Matching equation(s) _____

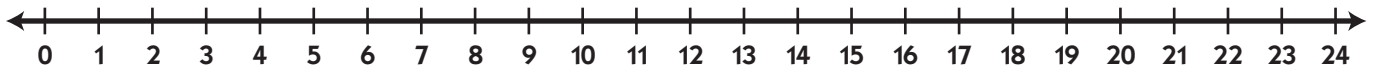
5 On the multi-jump event, Marina took 4 hops. Each hop was 6 feet long. How many feet did she jump in all? Use the number line to show this problem and find the answer.



Marina jumped _____ feet in all.

Matching equation _____

6 On the multi-jump event, Hooper jumped 24 feet in all. He did it in 3 equal jumps. How many feet long was each of the 3 jumps? Use the number line to show this problem and find the answer.



Each of the 3 jumps was _____ feet long.

Matching equation _____

7 In the third round, DJ jumped 3 yards. There are 36 inches in a yard. How many inches did he jump?

DJ jumped _____ inches.

Matching Equation _____

(Continued on next page.)

NAME _____

DATE _____

Independent Worksheet 8 The Frog Jumping Contest (cont.)

8 Write your own word problem to match each of the expressions below. Solve your own problems.

a 12×12

Answer: _____

b $36 \div 12$

Answer: _____

