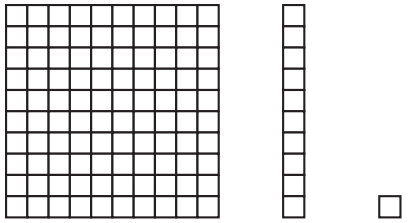
Grade 4 Unit 2 Module 1
Practice Pages for Math at Home

The Bridges Second Edition Module Packets, available from the Home Learning Resources page of the Bridges Educator Site, are designed to provide a review of math topics that were covered in class prior to school closures. They are meant for teachers to send home, so students can continue to engage with key grade-level skills. The material in these packets includes exercises that can be completed by students at home with their families.

NAME | DATE

Base Ten Area Pieces



Write and solve an equation for each problem below.

1 Max has 5 strips. How many units are in Max's strips in all? _____

2 Amelia has 10 times as many strips as Max.

a How many strips does Amelia have? _____

b How many units are in Amelia's strips in all? _____

c How many mats can Amelia make with her strips? _____

3 Leon has 8 strips. How many units are in Leon's strips in all? _____

4 Zia has 100 times as many strips as Leon.

a How many strips does Zia have? _____

b How many units are in Zia's strips in all? _____

c How many mats can Zia make with her strips? _____

d How many strip-mats can Zia make with her strips? _____

5 Sage has 3 strip-mats, 3 mats, and 2 units. Tristan has 2 mats, 8 strips, and 5 units. Andre has twice as many strip-mats, mats, and units as Sage.

a How many units is that in all? Show your work.

NAME | DATE

A New Room for Nick

Nick is moving to a new house. His new room is smaller than his room where he used to live. Nick is using a meter stick to measure several items to see if they will fit in his new room.

1 Nick is measuring the length of his bed. What unit should Nick use? _____

2 Nick is measuring the width of his mp3 player. What unit should Nick use? _____

3 Nick is measuring the height of his chair. What unit should Nick use? _____

4 Nick has a rug that is 12 decimeters by 18 decimeters. Draw a small, labeled sketch of Nick's rug. Then, find the area of his rug in square decimeters.

Write an equation that shows the area of the rug: _____

5 There is a window in Nick's new room that is 11 decimeters by 15 decimeters. Draw a small, labeled sketch of the window. Then, find the area of the window in square decimeters.

Write an equation that shows the area of the window: _____

6 The back of Nick's bookcase measures 10 decimeters by 18 decimeters. Nick thinks its area is 108 square decimeters. Do you agree? Use numbers, labeled sketches, or words to explain your answer.

NAME | DATE

Flora Tries Again

After Flora found that the piece of cloth she'd cut wasn't big enough, she tried again several times to cut a piece that was exactly 240 square centimeters. Here are the dimensions of the four other rectangles she cut.

10 cm	10 cm	10 cm	10 cm
× 8 cm	× 12 cm	× 15 cm	× 23 cm

1 Circle the combination you believe will produce a piece of cloth closest to the size Flora needs.

2 Create a rectangular array with base ten area pieces to model each of the combinations.

3 For each combination, find the area of the piece of cloth Flora cut. Record your answers below, and be sure to label them with the proper units.

a 10 cm × 8 cm = _____

b 10 cm × 12 cm = _____

c 10 cm × 15 cm = _____

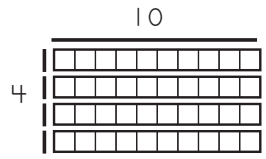
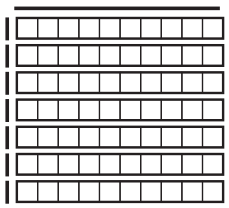
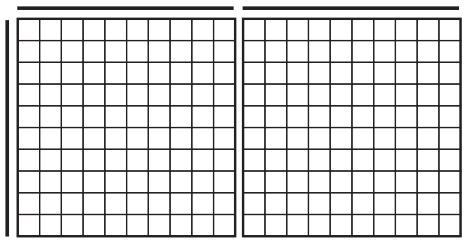
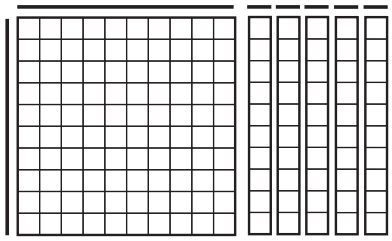
d 10 cm × 23 cm = _____

4 **CHALLENGE** Can you think of more than one way for Flora to cut a rectangle that is exactly 240 square centimeters?

NAME | DATE

Arrays & Equations for Tens

1 For each rectangle below, label the dimensions, find the area, and write a multiplication equation to describe the array.

Labeled Array	Area	Multiplication Equation
ex 	40	4 × 10 = 40
a 		
b 		
c 		

2 Complete the multiplication facts below.

$10 \times 4 =$ _____ $10 \times 2 =$ _____ $10 \times 9 =$ _____

$10 \times 3 =$ _____ $10 \times 5 =$ _____ $10 \times 8 =$ _____

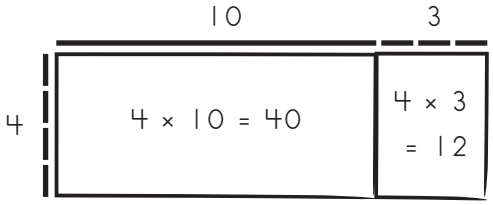
14	11	15	19	30	40	50
× 10	× 10	× 10	× 10	× 10	× 10	× 10

3 What happens every time you multiply a number by 10? Why?

NAME | DATE

Fill the Frames

Label each array frame below. Then fill it in with labeled rectangles. Write an addition equation to show how you got the total. Then write a multiplication equation to match the array.

Labeled Array Frame & Rectangle	Addition Equation	Multiplication Equation
ex 	40 + 12 = 52	4 × 13 = 52
1 		
2 		
3		

NAME | DATE

Measuring in Centimeters page 1 of 3

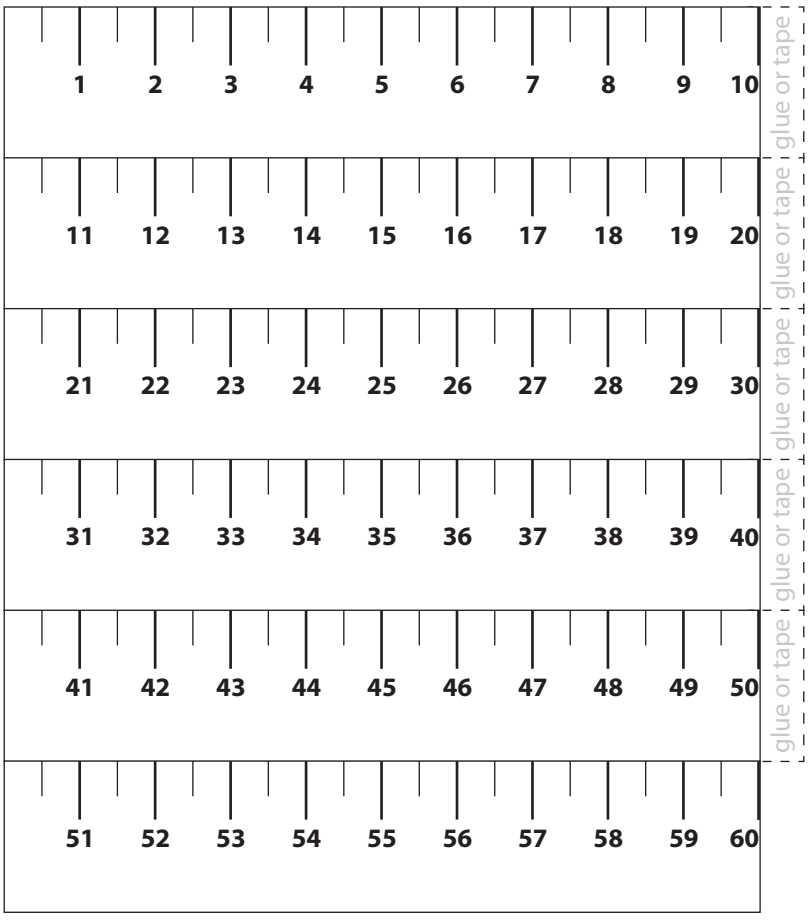
Note to Families

This Home Connection asks students to measure common items at home in centimeters. If you have a ruler or tape measure at home marked in centimeters, have your child use it. If not, you can cut out the strips below and tape or glue them together to create a measuring tape.

Measuring in Centimeters

1 Find a ruler or tape measure that is marked in centimeters. You can also cut out the strips below and tape or glue them together to make your own measuring tape.

2 By yourself or with a family member or two, measure the items listed on the worksheet and record your results.



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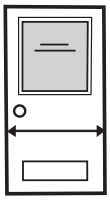
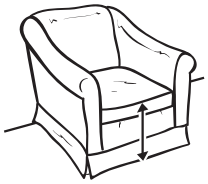
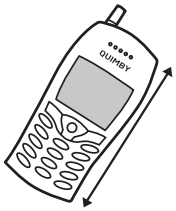
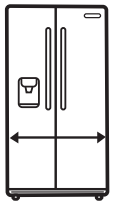
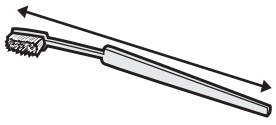
NAME | DATE

Measuring in Centimeters page 2 of 3

Please measure the following objects in centimeters and record the results.

Object To Be Measured	Measurement in Centimeters
1 width of your bed 	
2 width of a door 	
3 height from the floor to the seat of your favorite chair 	
4 length of a telephone or cell phone 	
5 dimensions of your favorite book (length and width) 	
6 width of your refrigerator 	
7 dimensions of a towel (length and width) 	
8 length of your toothbrush 	

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NAME | DATE

Measuring in Centimeters page 3 of 3

Locate objects at home that are about 6 cm and 80 cm long or tall. Record the name of the object below.

Approximate Length	Object You Found
1 about 6 cm long or tall	
2 about 80 cm long or tall	

3 Jasmine is making cookies for the fourth grade class. The recipe calls for 8 ounces of chocolate chips. She needs to triple the recipe to have enough for everyone, and she is going to add 2 more ounces of chocolate chips to the tripled batch to make the cookies extra delicious. How many ounces of chocolate chips does she need?

a Use numbers, labeled sketches, or words to solve the problem. Show your work.

b Fill in the bubble beside the equation that best represents this problem. (The letter *c* stands for ounces of chocolate chips.)

○ $8 + 3 + 2 = c$ ○ $(8 \times 3) + 2 = c$ ○ $(8 \times 3) - 2 = c$

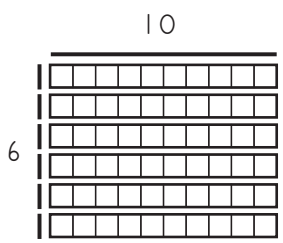
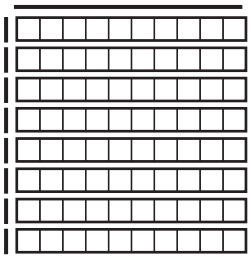
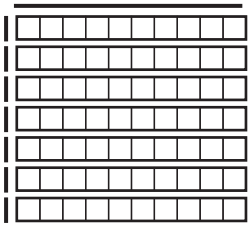
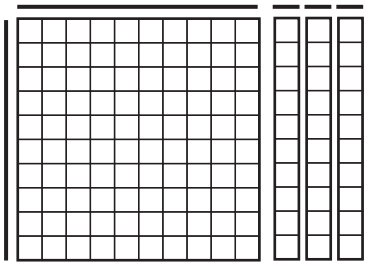
4 Jasmine can fit 12 cookies on a cookie sheet. She needs 6 times that many cookies for the whole fourth grade. Jasmine also wants to have 2 cookies for each of the 4 teachers. How many cookies does Jasmine need to make? Show your work.

5 **CHALLENGE** When 2 pieces of rope are placed end-to-end, they measure 40 meters in length. When the 2 pieces are laid side-by-side, one is 10 meters longer than the other. How long is each piece of rope? Show your work.

NAME | DATE

More Multiplying by Ten page 1 of 2

1 For each rectangle below, label the dimensions, find the area, and write an equation to describe the array.

Labeled Array	Area	Multiplication Equation
ex 	60 sq. units	6units × 10 units = 60 sq. units
a 		
b 		
c 		

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NAME | DATE

More Multiplying by Ten page 2 of 2

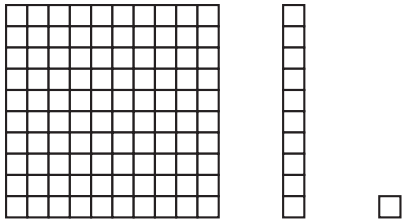
2 Write a multiplication equation or story problem in each empty box to complete the table.

	Story Problems	Multiplication Equation
ex	Sarah has 5 dimes. How much money does she have?	$5 \times 10¢ = 50¢$
a	James has 12 dimes in his pocket. How much money does he have?	
b	Larry had 16 dimes in his collection of old coins. How much money does he have?	
c		$10¢ \times 30 = \$3.00$
d		$21 \times 10¢ = \$2.10$

3 **CHALLENGE** Dana has only nickels in her hand, and Ajah has exactly the same number of dimes and no other coins. Together they have a total of 90¢. How many coins is each person holding? Show your work below.

NAME | DATE

Base Ten Area Pieces



Write and solve an equation for each problem below.

1 Max has 5 strips. How many units are in Max's strips in all? 5 × 10 = 50 units

2 Amelia has 10 times as many strips as Max.

a How many strips does Amelia have? 10 × 5 = 50 strips

b How many units are in Amelia's strips in all? 50 × 10 = 500 units

c How many mats can Amelia make with her strips? 50 ÷ 10 = 5 mats

3 Leon has 8 strips. How many units are in Leon's strips in all? 8 × 10 = 80 units

4 Zia has 100 times as many strips as Leon.

a How many strips does Zia have? 100 × 8 = 800 strips

b How many units are in Zia's strips in all? 800 × 10 = 8,000 units

c How many mats can Zia make with her strips? 800 ÷ 10 = 80 mats

d How many strip-mats can Zia make with her strips? 800 ÷ 100 = 8 strip mats

5 Sage has 3 strip-mats, 3 mats, and 2 units. Tristan has 2 mats, 8 strips, and 5 units. Andre has twice as many strip-mats, mats, and units as Sage.

a How many units is that in all? Show your work.

Work may vary. Example:

10,191 units.

3 strip-mats + 3 mats + 2 units = 3,302 units
2 mats + 8 strips + 5 units = 285 units
6 strip-mats + 6 mats + 4 units = 6,604 units
10,191 units

NAME | DATE

A New Room for Nick

Nick is moving to a new house. His new room is smaller than his room where he used to live. Nick is using a meter stick to measure several items to see if they will fit in his new room.

1 Nick is measuring the length of his bed. What unit should Nick use? meters

2 Nick is measuring the width of his mp3 player. What unit should Nick use? cm

3 Nick is measuring the height of his chair. What unit should Nick use? cm

4 Nick has a rug that is 12 decimeters by 18 decimeters. Draw a small, labeled sketch of Nick's rug. Then, find the area of his rug in square decimeters.

216 sq. dm

Work will vary. Example:

$12 \times 12 = 144$

$6 \times 12 = 72$

$144 + 72 = 216$

Write an equation that shows the area of the rug: $12 \times 18 = 216$ sq. dm

5 There is a window in Nick's new room that is 11 decimeters by 15 decimeters. Draw a small, labeled sketch of the window. Then, find the area of the window in square decimeters.

165 sq. dm

Work will vary. Example:

$10 \times 15 = 150$

$1 \times 15 = 15$

$150 + 15 = 165$

Write an equation that shows the area of the window: $11 \times 15 = 165$ sq. dm

6 The back of Nick's bookcase measures 10 decimeters by 18 decimeters. Nick thinks its area is 108 square decimeters. Do you agree? Use numbers, labeled sketches, or words to explain your answer.

No; Work will vary. Example:

$10 \times 18 = 180$ sq. dm, not 108 sq. dm

NAME | DATE

Flora Tries Again

After Flora found that the piece of cloth she'd cut wasn't big enough, she tried again several times to cut a piece that was exactly 240 square centimeters. Here are the dimensions of the four other rectangles she cut.

10 cm	10 cm	10 cm	10 cm
× 8 cm	× 12 cm	× 15 cm	× 23 cm

1 Circle the combination you believe will produce a piece of cloth closest to the size Flora needs. **Responses will vary.**

2 Create a rectangular array with base ten area pieces to model each of the combinations.

3 For each combination, find the area of the piece of cloth Flora cut. Record your answers below, and be sure to label them with the proper units.

a 10 cm × 8 cm = **80 sq. cm**

b 10 cm × 12 cm = **120 sq. cm**

c 10 cm × 15 cm = **150 sq. cm**

d 10 cm × 23 cm = **230 sq. cm**

4 **CHALLENGE** Can you think of more than one way for Flora to cut a rectangle that is exactly 240 square centimeters?

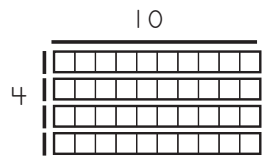
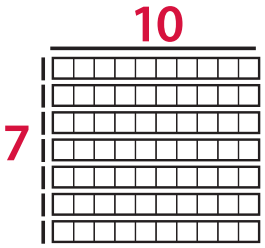
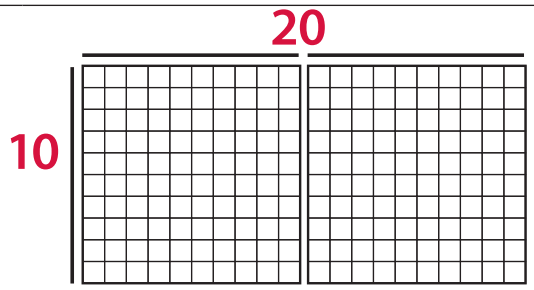
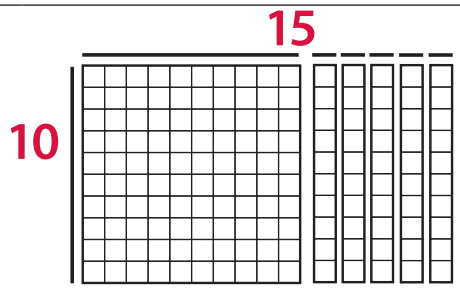
Responses will vary.
Possibilities include:

1 cm × 240 cm
2 cm ×120 cm
3 cm × 80 cm
4 cm × 60 cm
5 cm × 48 cm
6 cm × 40 cm
8 cm × 30 cm
10 cm × 24 cm
12 cm × 20 cm
15 cm × 16 cm

NAME | DATE

Arrays & Equations for Tens

1 For each rectangle below, label the dimensions, find the area, and write a multiplication equation to describe the array.

Labeled Array	Area	Multiplication Equation
ex 	40	4 × 10 = 40
a 	70	7 × 10 = 70
b 	200	10 × 20 = 200
c 	150	10 × 15 = 150

2 Complete the multiplication facts below.

10 × 4 = 40 10 × 2 = 20 10 × 9 = 90

10 × 3 = 30 10 × 5 = 50 10 × 8 = 80

14 × 10 = 140	11 × 10 = 110	15 × 10 = 150	19 × 10 = 190	30 × 10 = 300	40 × 10 = 400	50 × 10 = 500

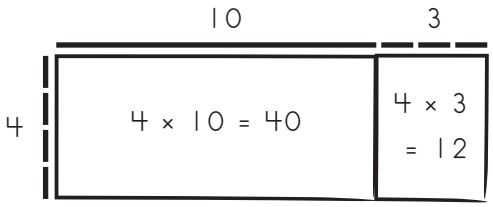
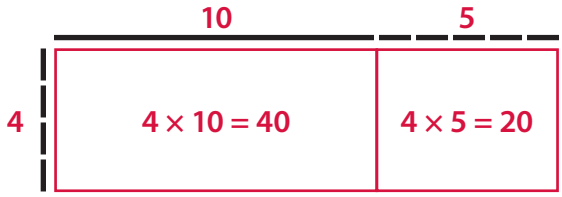
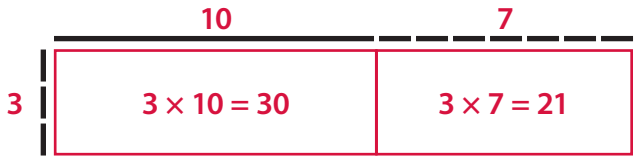
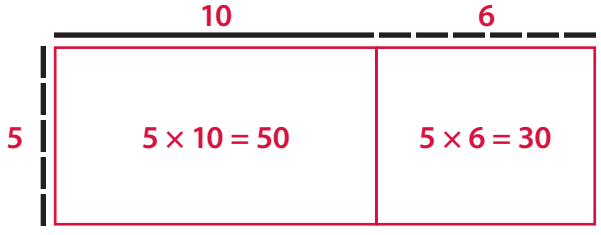
3 What happens every time you multiply a number by 10? Why?

Responses will vary.

NAME | DATE

Fill the Frames

Label each array frame below. Then fill it in with labeled rectangles. Write an addition equation to show how you got the total. Then write a multiplication equation to match the array.

Labeled Array Frame & Rectangle	Addition Equation	Multiplication Equation
ex 	40 + 12 = 52	4 × 13 = 52
1 	40 + 20 = 60	4 × 15 = 60
2 	30 + 21 = 51	3 × 17 = 51
3 	50 + 30 = 80	5 × 16 = 80

NAME | DATE

Measuring in Centimeters page 1 of 3

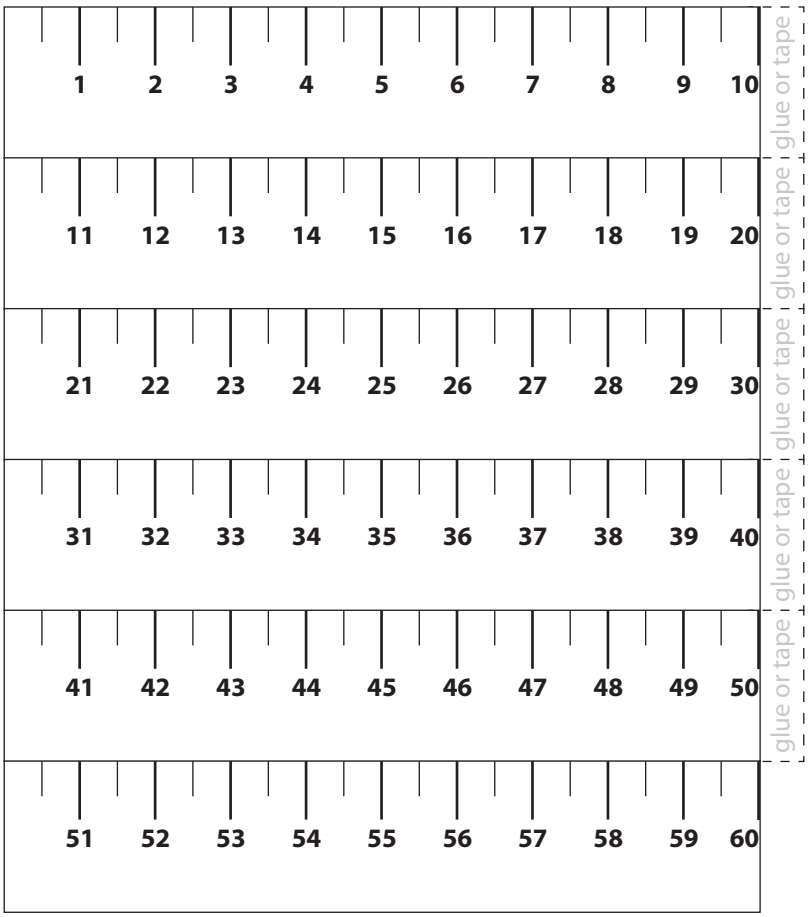
Note to Families

This Home Connection asks students to measure common items at home in centimeters. If you have a ruler or tape measure at home marked in centimeters, have your child use it. If not, you can cut out the strips below and tape or glue them together to create a measuring tape.

Measuring in Centimeters

1 Find a ruler or tape measure that is marked in centimeters. You can also cut out the strips below and tape or glue them together to make your own measuring tape.

2 By yourself or with a family member or two, measure the items listed on the worksheet and record your results.



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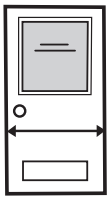
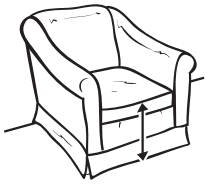
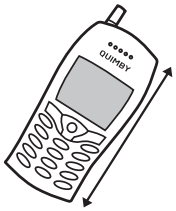
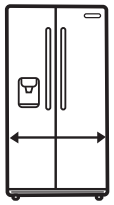
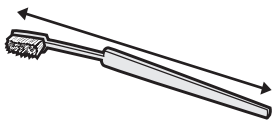
NAME | DATE

Measuring in Centimeters page 2 of 3

Please measure the following objects in centimeters and record the results.

Object To Be Measured	Measurement in Centimeters
1 width of your bed 	**Work will vary, example: 102 cm**
2 width of a door 	**Work will vary, example: 104 cm**
3 height from the floor to the seat of your favorite chair 	**Work will vary, example: 46 cm**
4 length of a telephone or cell phone 	**Work will vary, example: 15 cm**
5 dimensions of your favorite book (length and width) 	**Work will vary, example: 14 cm × 21 cm**
6 width of your refrigerator 	**Work will vary, example: 102 cm**
7 dimensions of a towel (length and width) 	**Work will vary, example: 75 cm**
8 length of your toothbrush 	**Work will vary, example: 19 cm**

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NAME | DATE

Measuring in Centimeters page 3 of 3

Locate objects at home that are about 6 cm and 80 cm long or tall. Record the name of the object below.

Approximate Length	Object You Found
1 about 6 cm long or tall	Work will vary, example: door key
2 about 80 cm long or tall	Work will vary, example: bedside table

3 Jasmine is making cookies for the fourth grade class. The recipe calls for 8 ounces of chocolate chips. She needs to triple the recipe to have enough for everyone, and she is going to add 2 more ounces of chocolate chips to the tripled batch to make the cookies extra delicious. How many ounces of chocolate chips does she need?

a Use numbers, labeled sketches, or words to solve the problem. Show your work.

26 ounces

b Fill in the bubble beside the equation that best represents this problem. (The letter *c* stands for ounces of chocolate chips.)

○ $8 + 3 + 2 = c$ ● $(8 \times 3) + 2 = c$ ○ $(8 \times 3) - 2 = c$

4 Jasmine can fit 12 cookies on a cookie sheet. She needs 6 times that many cookies for the whole fourth grade. Jasmine also wants to have 2 cookies for each of the 4 teachers. How many cookies does Jasmine need to make? Show your work.

80 cookies

5 **CHALLENGE** When 2 pieces of rope are placed end-to-end, they measure 40 meters in length. When the 2 pieces are laid side-by-side, one is 10 meters longer than the other. How long is each piece of rope? Show your work.

15m and 25m. Work will vary. Example: if you take off the extra 10m, the total is 30 m, so each lengh is the same: 15m. That means the shorter one is 15 cm and the longer one is 25m.

30 m total, 15 m each.

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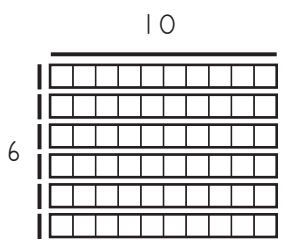
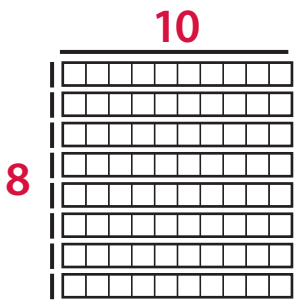
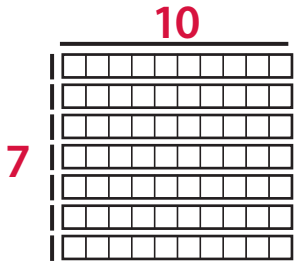
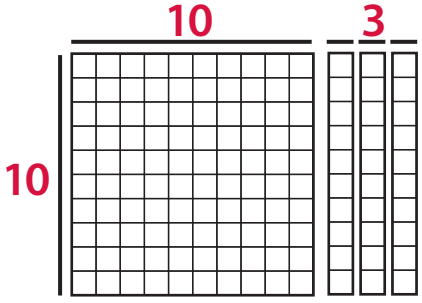
More Multiplying by Ten page 1 of 2

1 For each rectangle below, label the dimensions, find the area, and write an equation to describe the array.

Labeled Array	Area	Multiplication Equation
ex 	60 sq. units	6 units × 10 units = 60 sq. units
a 	**80 sq. units**	**8 units × 10 units = 80 sq. units**
b 	**70 sq. units**	**7 units × 10 units = 70 sq. units**
c 	**130 sq. units**	**10 units × 13 units = 130 sq. units**

(continued on next page)

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More Multiplying by Ten page 2 of 2

2 Write a multiplication equation or story problem in each empty box to complete the table.

	Story Problems	Multiplication Equation
ex	Sarah has 5 dimes. How much money does she have?	5 × 10¢ = 50¢
a	James has 12 dimes in his pocket. How much money does he have?	12 × 10¢ = 120¢ or $1.20
b	Larry had 16 dimes in his collection of old coins. How much money does he have?	16× 10¢ = 160¢ or $1.60
c	Work will vary. Example: Alex has 30 dimes. How much money does he have?	10¢ × 30 = $3.00
d	Work will vary. Example: Eloise found 21 dimes while cleaning the house. How much money did she find?	21 × 10¢ = $2.10

3 **CHALLENGE** Dana has only nickels in her hand, and Ajah has exactly the same number of dimes and no other coins. Together they have a total of 90¢. How many coins is each person holding? Show your work below.

6 coins each. Work will vary, example:

# of coins	nickels	dimes
9	45¢	90¢
4	20¢	40¢
5	25¢	50¢
6	30¢	60¢