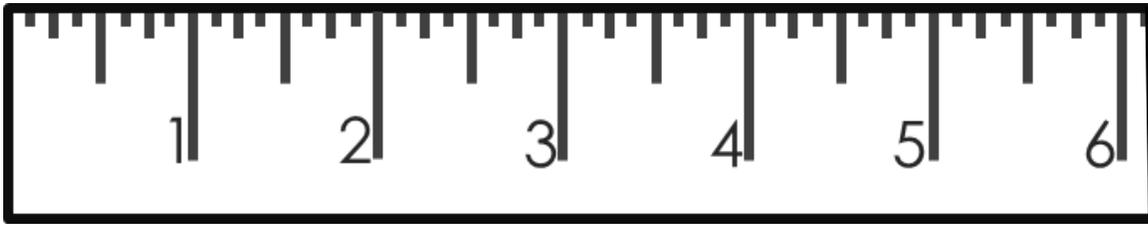


EVERYDAY MATHEMATICS—3rd Grade

Unit 8 Review: Multiplication and Division

1)



- a. Make a dot at $3\frac{1}{2}$ inches. Label it with the letter A.
- b. Make a dot at $4\frac{1}{4}$ inches. Label it with the letter B.
- c. Make a dot at $5\frac{3}{4}$ inches. Label it with the letter C.

2) Measure the line segment below to the nearest $\frac{1}{4}$ inch.



about _____ in.

3) Write a helper fact and use it to help you solve.

Use the helper fact to help you fill in the missing factors.

a. $4 \times 80 = \underline{\hspace{2cm}}$

Fact I used to help:

d. Helper fact: $3 \times 4 = \underline{\hspace{2cm}}$

$30 \times \underline{\hspace{1cm}} = 120$

b. $70 \times 5 = \underline{\hspace{2cm}}$

Fact I used to help:

e. Helper fact: $\underline{\hspace{1cm}} = 6 \times 3$

$180 = \underline{\hspace{1cm}} \times 3$

c. $90 \times 4 = \underline{\hspace{2cm}}$

Fact I used to help:

f. Helper fact: $6 \times 8 = \underline{\hspace{2cm}}$

$\underline{\hspace{1cm}} \times 8 = 480$

Unit 8 Review (continued)

4) Write in factor pairs to make the number sentences true.

$$\underline{\quad} \times \underline{\quad} = 15$$

$$21 = \underline{\quad} \times \underline{\quad}$$

$$\underline{\quad} \times \underline{\quad} = 30$$

5) Four friends want to share \$56. They have \$10 bills and \$1 bills. They can exchange larger bills for smaller bills if they need to. Write a number model. Use numbers or pictures to show how you solved the problem.

The letter stands for _____

(number model with letter for unknown)

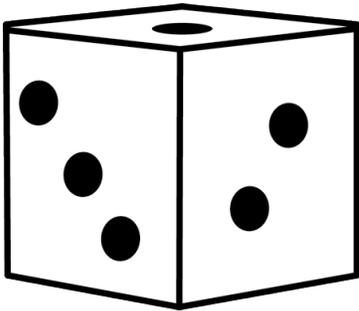
Answer: Each friend gets \$_____.

Unit 8 Review (continued)

6) Here is a *Factor Bingo* game mat. You draw a 3 card, Circle at least two products with a factor of 3.

9	12	13	30	19
32	28	55	16	10
18	40	24	26	8
41	35	29	20	14
17	50	22	15	27

7) Explain why the shape in this picture is a cube.



Name: _____ Date: _____

EVERYDAY MATHEMATICS—3rd Grade

Unit 8 Challenge Review

- 1) Suppose 5 friends want to share \$62. They have \$10 bills, \$1 bills, and coins. Show or explain how much money each friend would get. Be sure to describe each step of how you shared the \$62.

Number model: _____

Each friend gets _____

- 2) Here is a game mat for *Speed Factor Bingo*.

25	10	17	6	16
8	11	4	5	22
13	32	54	26	55
9	24	30	12	18
14	42	35	90	48

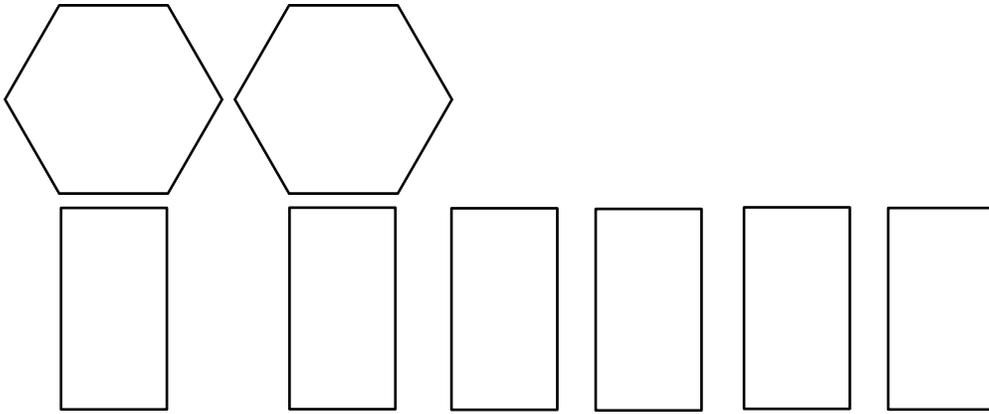
In *Speed Factor Bingo*, a player draws a number card and covers all the products that have that number as a factor.

Name a factor card that would allow a player to get a bingo in one turn.

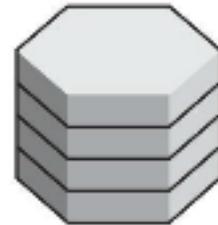
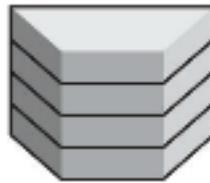
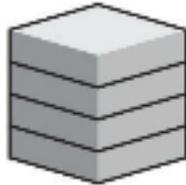
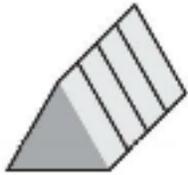
Draw a line through the row, column, or diagonal to show the bingo.

Unit 8 Challenge Review (continued)

3) Adam traced the bases and other faces of a pattern-block prism.



Circle the picture of the prism that matches his tracings.



Name the shapes of its bases. _____

Name the shapes of its other faces. _____

Skyler says this a picture of a rectangular prism.
Explain why you agree or disagree.

Name: _____ Date: _____

EVERYDAY MATHEMATICS—3rd Grade

Unit 8 Cumulative Review

For each story:

Write a number model. Use a letter for what you want to find out. You may complete the diagram to help.

Solve. Then write the number model with your answer to check your work.

- 1) Julian bought 6 boxes of markers.
There were 9 markers in each box.

boxes	markers in each box	markers in all

How many markers did she buy in all?

The letter _____ represents _____.

(number model with letter)

Julian bought _____.

(unit)

(number model with answer)

Unit 8 Cumulative Review (continued)

- 2) The science teacher shared 60 rocks equally among the 10 children in the science club. How many rocks did each child get?

children	rocks per child	rocks in all

The letter _____ represents _____.

_____ (number model with letter)

Each child got _____ (unit).

_____ (number model with answer)

- 3) Fill in the blanks.

a. $6 \times \underline{\quad} = 42$

b. $\underline{\quad} = 4 \times 9$

c. $\underline{\quad} \times 8 = 32$

d. $35 = \underline{\quad} \times 7$

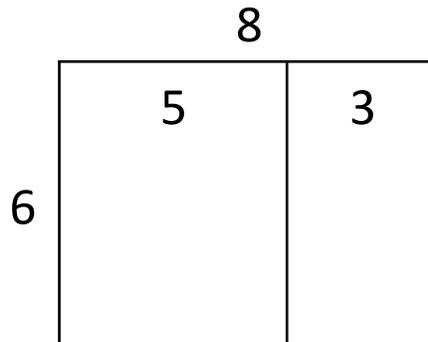
e. If $6 \times \underline{\quad} = 48$, then $48 \div 6 = \underline{\quad}$

f. If $\underline{\quad} \times 9 = 81$, then $81 \div 9 = \underline{\quad}$

g. If $7 \times \underline{\quad} = 56$, then $56 \div 7 = \underline{\quad}$

Unit 8 Cumulative Review (continued)

- 4) Cameron used the break-apart strategy to solve 6×8 by breaking 8 into the easier numbers 5 and 3. See his picture below.



Use Cameron's easier numbers and drawing to write number models that he can use to solve 6×8 .

$$6 \times 8 = \underline{\quad}$$

- 5) Fill in the blanks.

a. $16 \div \underline{\quad} = 4$

b. $25 \div \underline{\quad} = 5$

c. $\underline{\quad} \div 6 = 6$

d. $64 \div 8 = \underline{\quad}$

Unit 8 Cumulative Review (continued)

- 6) Charlotte has 6 boxes of bouncy balls.
Each box has 3 purple bouncy balls and 7 green bouncy balls.
How many bouncy balls does Charlotte have in all?

The letter B represents the number of bouncy balls that Charlotte has.

- a. Underline the number model that fits the story.

$$6 \times 3 + 7 = B$$

$$(6 + 3) \times 7 = B$$

$$6 \times (7 + 3) = B$$

- b. Solve the number story. You may draw a picture to help.

Answer: _____
(unit)

- c. Write the number model with your answer to check your work.

Unit 8 Cumulative Review (continued)

7) Cross out the names that do not belong.

Add at least two more names with parenthesis that belong in the name-collection box.

24	$(10 \times 2) + 4$	$10 \times (2 + 4)$
	$(10 + 14) \times 0$	$(8 \times 3) \times 1$
	$(12 + 2) \times 4$	

8) For each problem, make an estimate and solve.
Check to make sure your answer makes sense.

a. Estimate: _____

$$\begin{array}{r} 4 \ 8 \ 7 \\ + 2 \ 9 \ 3 \\ \hline \end{array}$$

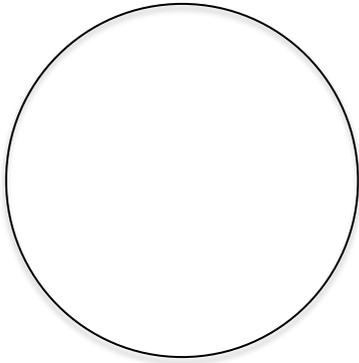
b. Estimate: _____

$$652 - 347 = \underline{\hspace{2cm}}$$

UNIT

Unit 8 Cumulative Review (continued)

9) Partition the circle into 4 equal parts. Label each part.

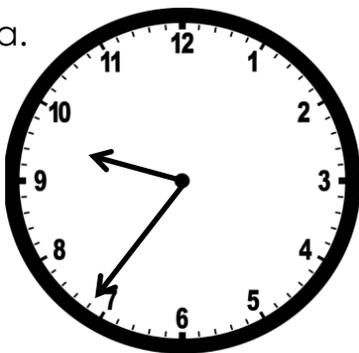


Shade $\frac{1}{4}$ of the circle.

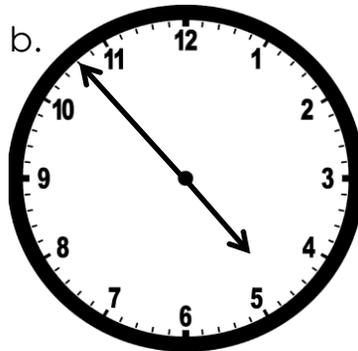
Write two fractions that name the **unshaded** part of the circle.

10) Write the time shown on the clocks below.

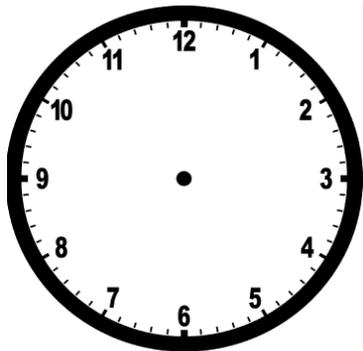
a.



b.



c. Draw the hour and minute hands to show the time 15 minutes before 8:43.



What time does the clock show? _____

Unit 8 Cumulative Review (continued)

- 11) Jack practiced piano for 40 minutes.
He started playing at 3:27. What time did he finish?

He finished at _____ P.M.

- 12) Owen has 800 milliliters (mL) of water in his watering can.
One jar holds 368 mL of water and the other holds 591 mL of water.
How much water does Owen need to fill both jars?

a. Estimate: _____

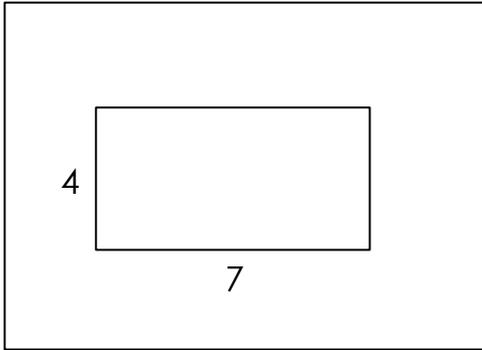
Answer: _____
(unit)

b. Does Owen have enough water to fill both jars? _____

Did you need to find an exact answer to decide whether Owen has enough water? Explain.

Unit 8 Cumulative Review (continued)

13) You draw this card in *The Area and Perimeter Game*:



a. Find the area and the perimeter.

Area= _____ square units

Perimeter= _____ units

b. Explain how you found the area.

14) Jocelyn wants to cover a bulletin board with cloth.

The area she wants to cover is 49 square inches.

If Jocelyn wants a square piece of cloth, how long and wide should she cut the cloth?

Draw a picture of the cloth and label the side lengths.

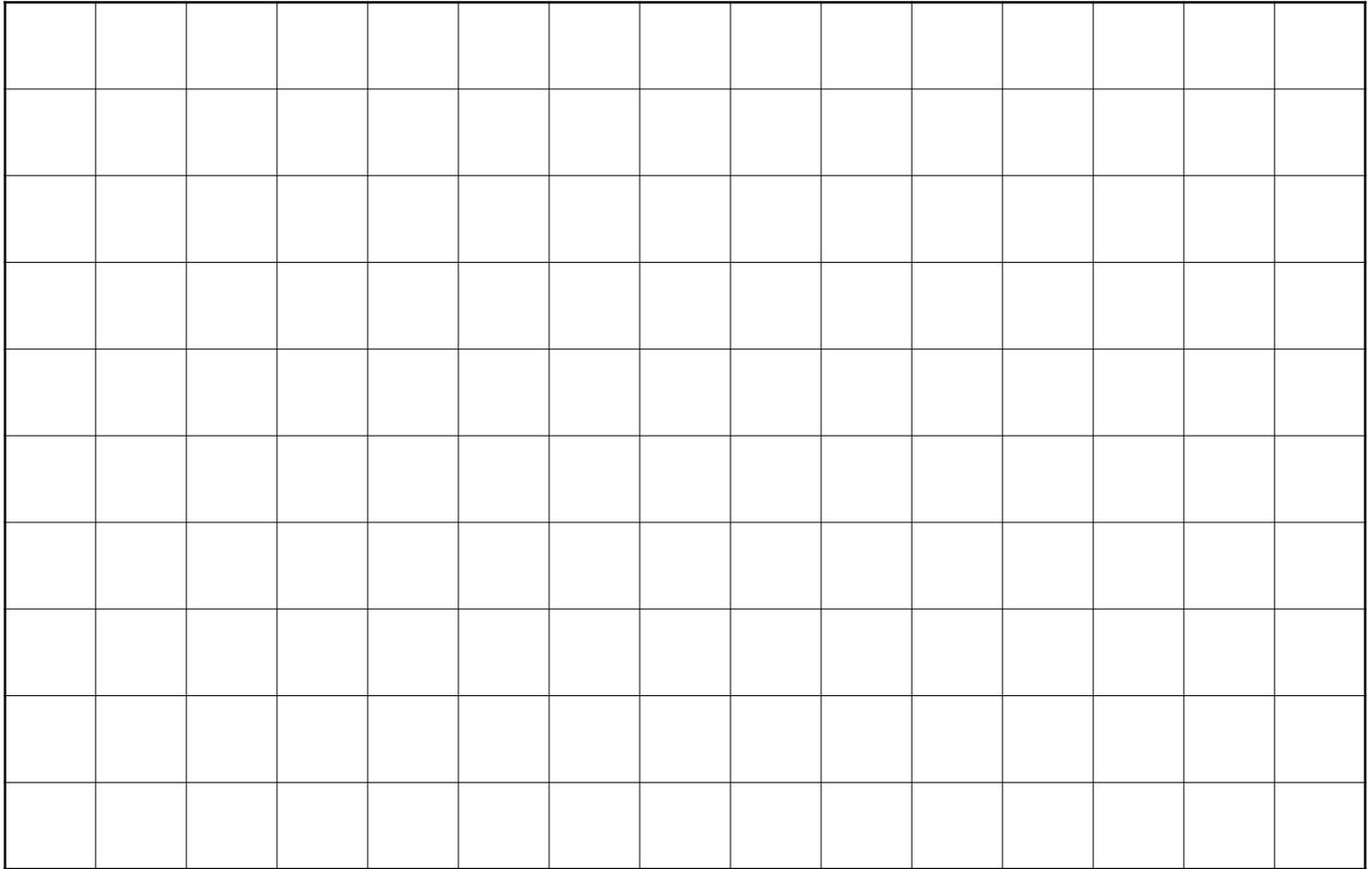
The cloth should be cut _____ long and _____ wide.
(unit) (unit)

What is the perimeter of the cloth? _____.
(unit)

Unit 8 Cumulative Review (continued)

- 17) Draw a rectangle with a perimeter of 20 centimeters.
Then draw a different rectangle with the same perimeter.

Label your rectangles A and B.



= 1 square cm

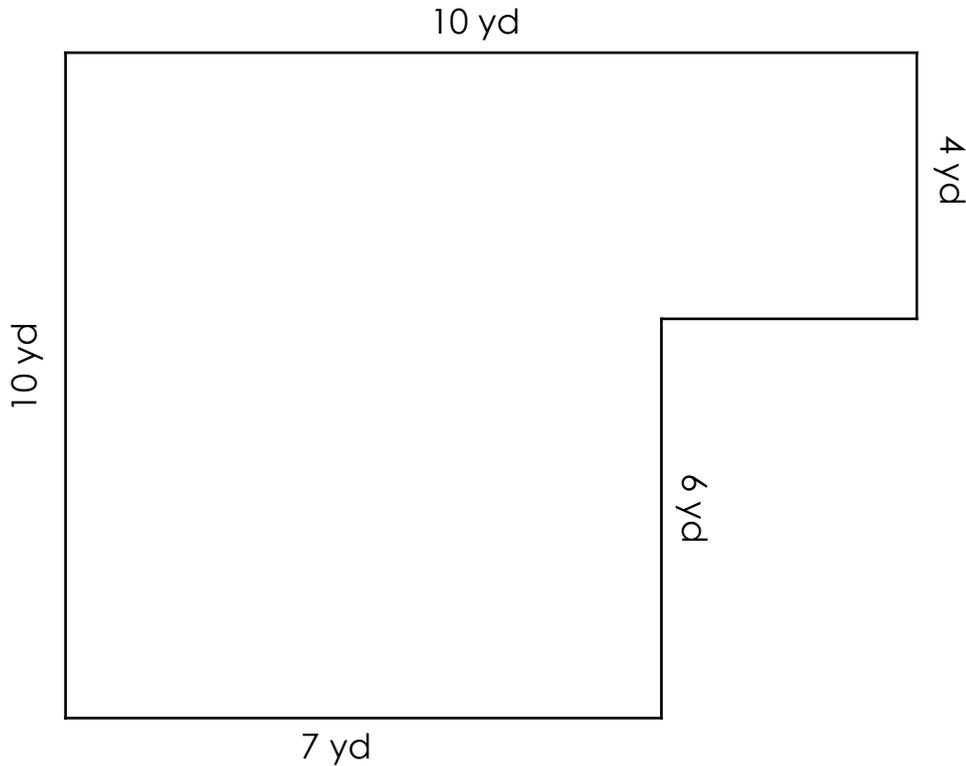
- b. Explain how you know the perimeters for Rectangle A and Rectangle B are 20 centimeters.

- c. What is the area of Rectangle A? _____
(unit)

- d. What is the area of Rectangle B? _____
(unit)

Unit 8 Cumulative Review (continued)

- 15) Mr. Portillo's class is figuring out the area of the floor in the science lab. Here is a sketch of the science lab.



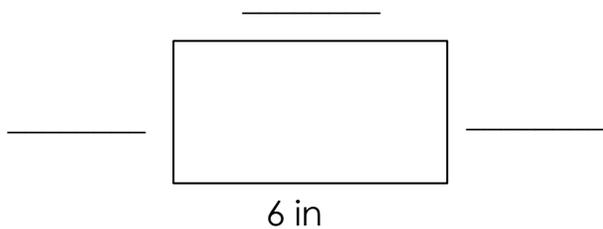
Draw a line to make two smaller rectangles you can use to find the area. Show your work. Write the number models you use.

Number models: _____

The area of the science lab is _____.
(unit)

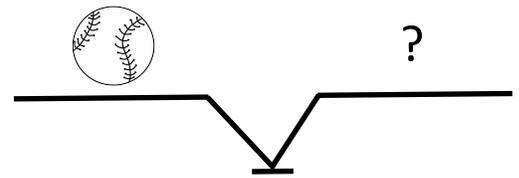
- 16) The perimeter of this rectangle is 18 inches.

Label the missing side lengths.

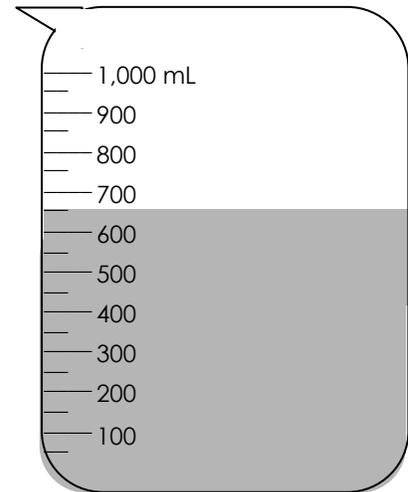


Unit 8 Cumulative Review (continued)

- 18) The mass of a softball is 184 grams.
Daniel has one 100-gram mass, one 50-gram mass,
five 10-gram masses, and five 1-gram masses
What masses could he use to balance the softball?

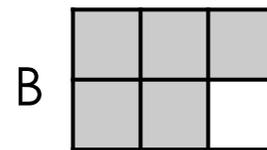
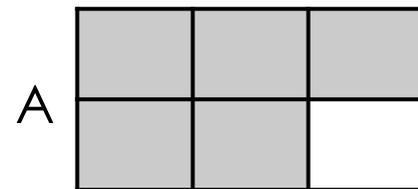


- 19) The 1-liter beaker at the right has
650 milliliters of water.
- Elizabeth wants to have a full liter of water.
How much more water does she need to add?
- She needs _____ more milliliters of water
to make 1 liter.



- 20) Juan said $\frac{5}{6}$ of Rectangle A is equal to
 $\frac{5}{6}$ of Rectangle B.

Julianna said $\frac{5}{6}$ of Rectangle A is not equal
to $\frac{5}{6}$ of Rectangle B.

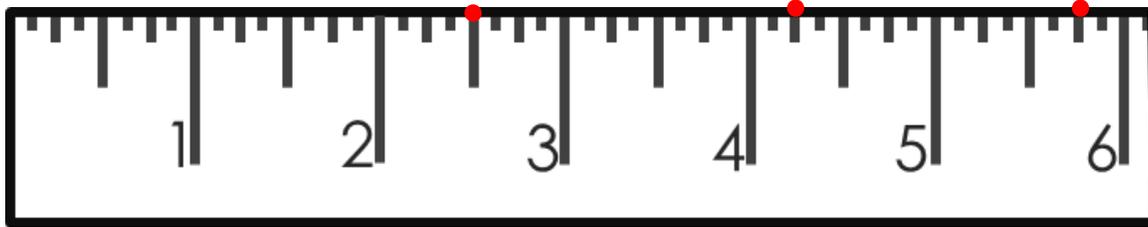


With whom do you agree? Explain.

EVERYDAY MATHEMATICS—3rd Grade

Unit 8 Review: Multiplication and Division

1)



- a. Make a dot at $3\frac{1}{2}$ inches. Label it with the letter A.
- b. Make a dot at $4\frac{1}{4}$ inches. Label it with the letter B.
- c. Make a dot at $5\frac{3}{4}$ inches. Label it with the letter C.

2) Measure the line segment below to the nearest $\frac{1}{4}$ inch.



about $5\frac{1}{4}$ in.

*Please Note: Individual printer/copier settings may alter the actual measurement. Please check your copy before referring to the answer key.

3) Write a helper fact and use it to help you solve.

Use the helper fact to help you fill in the missing factors.

a. $4 \times 80 = \underline{320}$

Fact I used to help:

$4 \times 8 = 32$

d. Helper fact: $3 \times 4 = \underline{12}$

$30 \times \underline{4} = 120$

b. $70 \times 5 = \underline{350}$

Fact I used to help:

$7 \times 5 = 35$

e. Helper fact: 18 = 6×3

$180 = \underline{60} \times 3$

c. $90 \times 4 = \underline{360}$

Fact I used to help:

$9 \times 4 = 36$

f. Helper fact: $6 \times 8 = \underline{48}$

60 $\times 8 = 480$

Unit 8 Review (continued)

ANSWER KEY

4) Write in factor pairs to make the number sentences true.

$$\underline{3} \times \underline{5} = 15$$

$$21 = \underline{3} \times \underline{7}$$

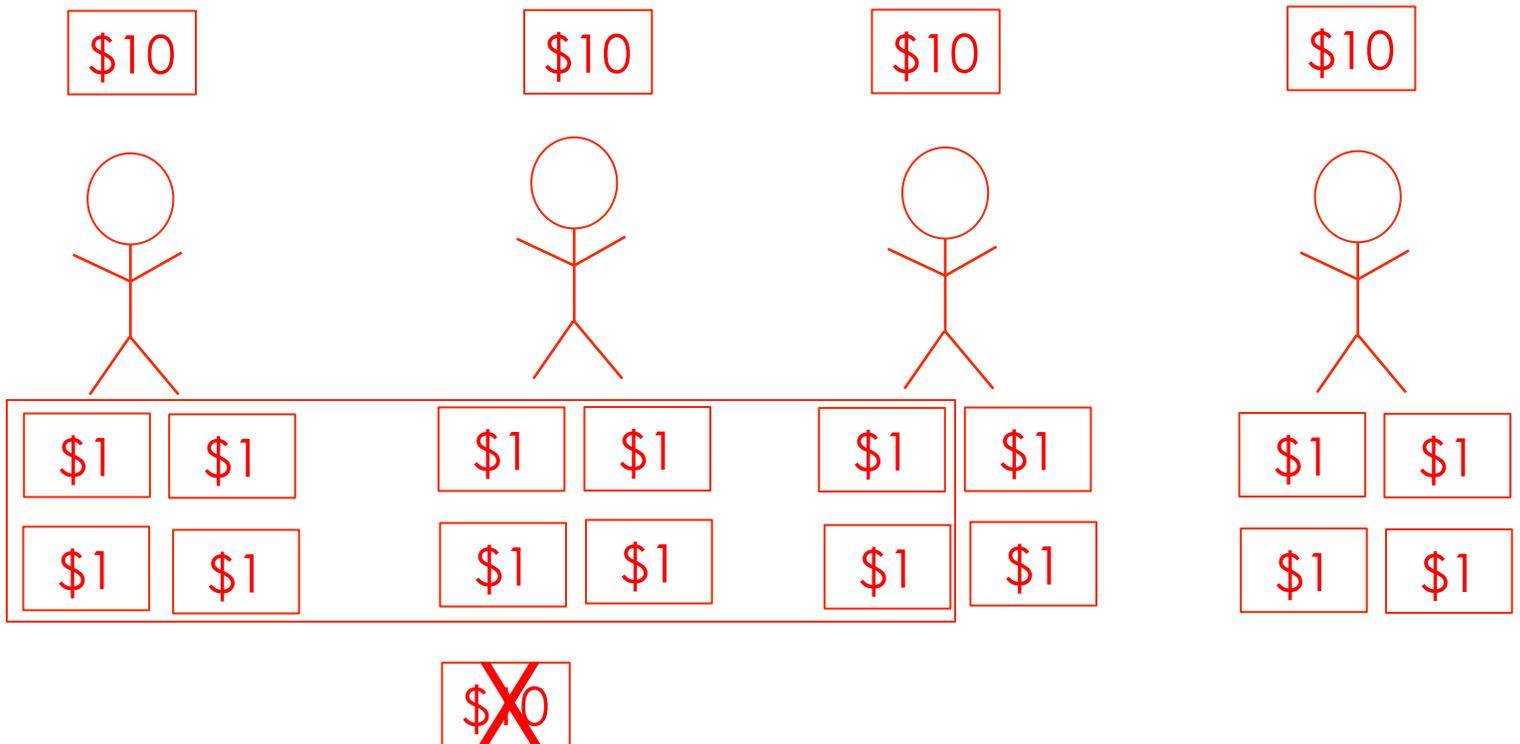
$$\underline{5} \times \underline{6} = 30 \quad 10 \times 3$$

5) Four friends want to share \$56. They have \$10 bills and \$1 bills. They can exchange larger bills for smaller bills if they need to. Write a number model. Use numbers or pictures to show how you solved the problem. **Possible answer:**

The letter D stands for number of dollars each friend gets.

$$\underline{56 \div 4 = D \text{ or } 4 \times D = 56}$$

(number model with letter for unknown)



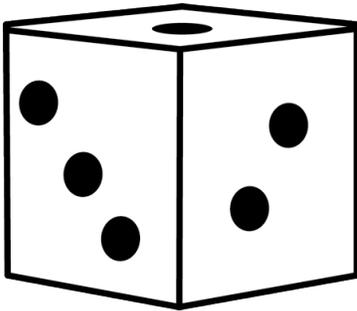
Answer: Each friend gets \$ 14 .

Unit 8 Review (continued)***ANSWER KEY***

6) Here is a *Factor Bingo* game mat. You draw a 3 card, Circle at least two products with a factor of 3.

9	12	13	30	19
32	28	55	16	10
18	40	24	26	8
41	35	29	20	14
17	50	22	15	27

7) Explain why the shape in this picture is a cube.



Possible answer: The shape of its faces are all squares. A cube must have 6 equal square faces.

EVERYDAY MATHEMATICS—3rd Grade
Unit 8 Challenge Review

- 1) Suppose 5 friends want to share \$62. They have \$10 bills, \$1 bills, and coins. Show or explain how much money each friend would get. Be sure to describe each step of how you shared the \$62.

Number model: $62 \div 5 = ?$ or $4 \times ? = 62$

Each friend gets \$12.40

- 2) Here is a game mat for *Speed Factor Bingo*.

25	10	17	6	16
8	11	4	5	22
13	32	54	26	55
9	24	30	12	18
14	42	35	90	48

In *Speed Factor Bingo*, a player draws a number card and covers all the products that have that number as a factor.

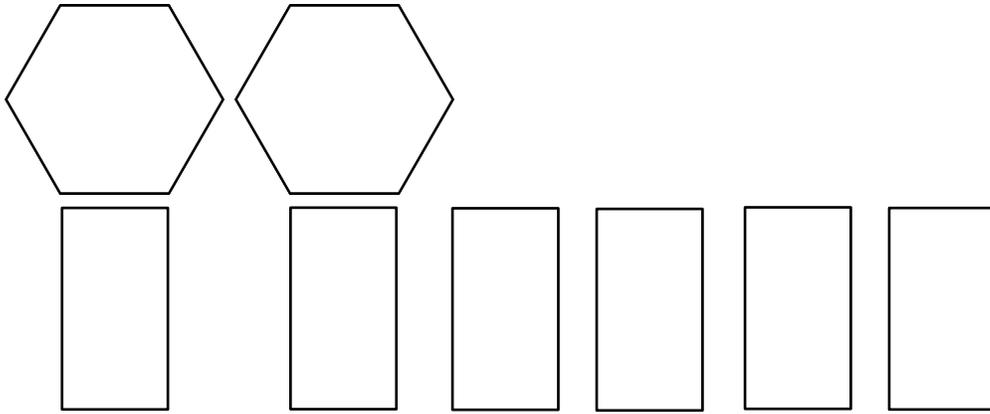
Name a factor card that would allow a player to get a bingo in one turn.

3

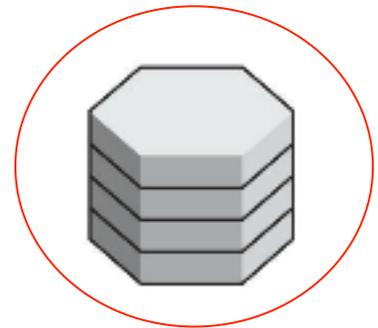
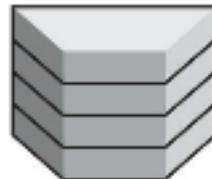
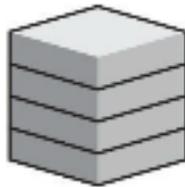
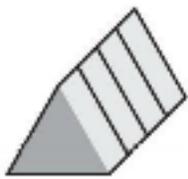
Draw a line through the row, column, or diagonal to show the bingo.

Unit 8 Challenge Review (continued) *ANSWER KEY*

3) Adam traced the bases and other faces of a pattern-block prism.



Circle the picture of the prism that matches his tracings.



Name the shapes of its bases. hexagons

Name the shapes of its other faces. rectangles

Skyler says this a picture of a rectangular prism.
Explain why you agree or disagree.

Possible answer: I disagree because its bases are hexagons. A prism only has 2 bases.

Name: *ANSWER KEY* Date: _____

EVERYDAY MATHEMATICS—3rd Grade Unit 8 Cumulative Review

For each story:

Write a number model. Use a letter for what you want to find out. You may complete the diagram to help.

Solve. Then write the number model with your answer to check your work.

- 1) Julian bought 6 boxes of markers.
There were 9 markers in each box.

How many markers did she buy in all?

boxes	markers in each box	markers in all
6	9	?

The letter M represents markers.

$$6 \times 9 = M$$

(number model with letter)

Julian bought 54 markers.
(unit)

$$6 \times 9 = 54$$

(number model with answer)

Unit 8 Cumulative Review (continued) *ANSWER KEY*

- 2) The science teacher shared 60 rocks equally among the 10 children in the science club. How many rocks did each child get?

children	rocks per child	rocks in all
10	?	60

The letter R represents rocks.

$$60 \div 10 = R$$

(number model with letter)

Each child got 6 rocks.
(unit)

$$60 \div 10 = 6$$

(number model with answer)

- 3) Fill in the blanks.

a. $6 \times \underline{7} = 42$

b. $\underline{36} = 4 \times 9$

c. $\underline{4} \times 8 = 32$

d. $35 = \underline{5} \times 7$

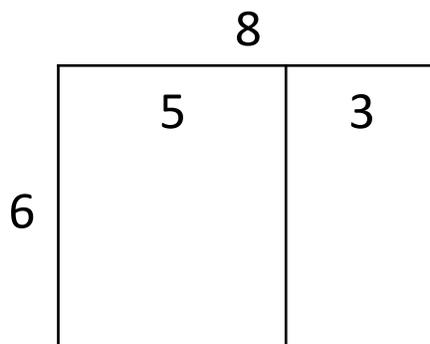
e. If $6 \times \underline{8} = 48$, then $48 \div 6 = \underline{8}$

f. If $\underline{9} \times 9 = 81$, then $81 \div 9 = \underline{9}$

g. If $7 \times \underline{8} = 56$, then $56 \div 7 = \underline{8}$

Unit 8 Cumulative Review (continued) *ANSWER KEY*

- 4) Cameron used the break-apart strategy to solve 6×8 by breaking 8 into the easier numbers 5 and 3. See his picture below.



Use Cameron's easier numbers and drawing to write number models that he can use to solve 6×8 .

$$5 \times 6 = 30$$

$$3 \times 6 = 18$$

$$30 + 18 = 48$$

$$6 \times 8 = \underline{48}$$

- 5) Fill in the blanks.

a. $16 \div \underline{4} = 4$

b. $25 \div \underline{5} = 5$

c. $\underline{36} \div 6 = 6$

d. $64 \div 8 = \underline{8}$

Unit 8 Cumulative Review (continued) *ANSWER KEY*

- 6) Charlotte has 6 boxes of bouncy balls.
Each box has 3 purple bouncy balls and 7 green bouncy balls.
How many bouncy balls does Charlotte have in all?

The letter B represents the number of bouncy balls that Charlotte has.

- a. Underline the number model that fits the story.

$$6 \times 3 + 7 = B$$

$$(6 + 3) \times 7 = B$$

$$\underline{6 \times (7 + 3) = B}$$

- b. Solve the number story. You may draw a picture to help.

Answer: 60 bouncy balls
(unit)

- c. Write the number model with your answer to check your work.

$$\underline{6 \times (7 + 3) = 60}$$

Unit 8 Cumulative Review (continued) *ANSWER KEY*

7) Cross out the names that do not belong.

Add at least two more names with parenthesis that belong in the name-collection box.

24	$(10 \times 2) + 4$	$10 \times (2 + 4)$
	$(10 + 14) \times 0$	$(8 \times 3) \times 1$
		$(12 + 2) \times 4$
	Answers will vary. Possible answers: $(6 \times 3) + 6$ $3 + (3 \times 7)$	

8) For each problem, make an estimate and solve.
Check to make sure your answer makes sense.

a. Estimate: $490 + 290 = 780$ or $500 + 300 = 800$

$$\begin{array}{r} 4 \ 8 \ 7 \\ + \ 2 \ 9 \ 3 \\ \hline 7 \ 8 \ 0 \end{array}$$

b. Estimate: $650 - 350 = 300$

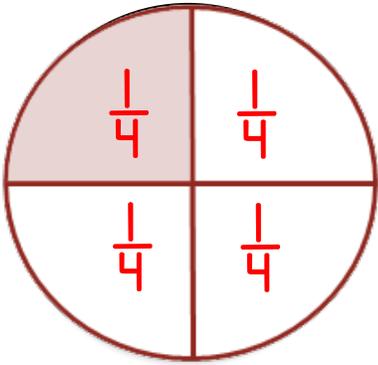
$$652 - 347 = \underline{305}$$

UNIT

Answers
will vary.

Unit 8 Cumulative Review (continued) *ANSWER KEY*

9) Partition the circle into 4 equal parts. Label each part.



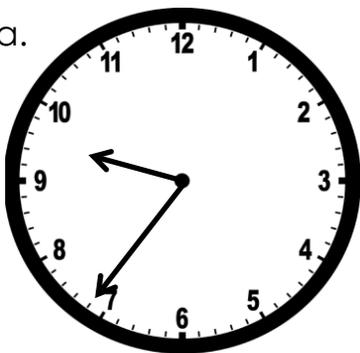
Shade $\frac{1}{4}$ of the circle.

Write two fractions that name the **unshaded** part of the circle.

$\frac{3}{4}$ $\frac{6}{8}$

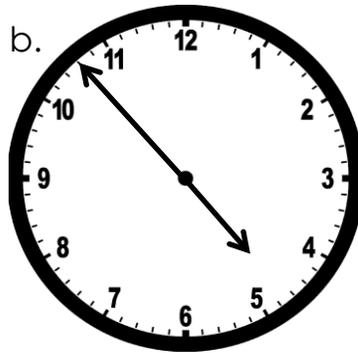
10) Write the time shown on the clocks below.

a.



9:36

b.



4:53

c. Draw the hour and minute hands to show the time 15 minutes before 8:43.

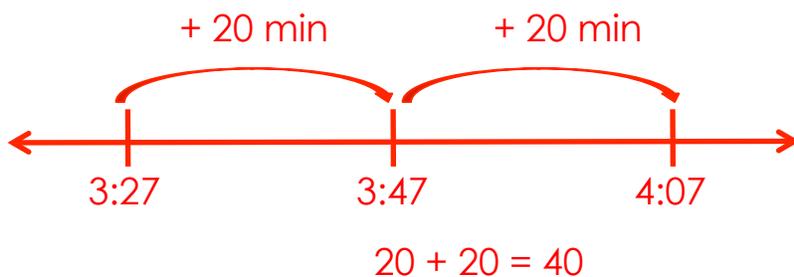


What time does the clock show? 8:28

Unit 8 Cumulative Review (continued) *ANSWER KEY*

- 11) Jack practiced piano for 40 minutes.
He started playing at 3:27. What time did he finish?

Possible strategy:



He finished at 4:07 P.M.

- 12) Owen has 800 milliliters (mL) of water in his watering can.
One jar holds 368 mL of water and the other holds 591 mL of water.
How much water does Owen need to fill both jars?

a. Estimate: $400 + 600 = 1,000$ or $370 + 590 = 960$

Answer: 959 mL
(unit)

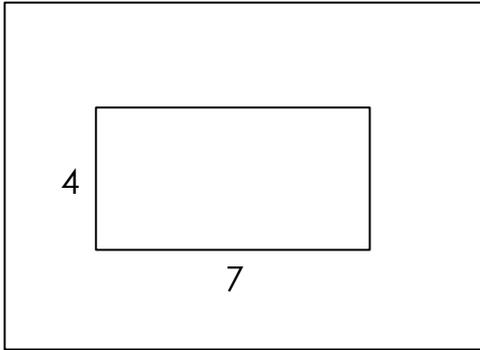
b. Does Owen have enough water to fill both jars? No

Did you need to find an exact answer to decide whether Owen has enough water? Explain.

Possible answer: No. I rounded 368 to 400 (or 370) and 591 to 600 (or 590). Both
rounded numbers are more than the actual numbers, so the exact sum has to
be less than 800. The sum is 1,000 (or 960), so Owen does not have enough
water to fill both jars.

Unit 8 Cumulative Review (continued) *ANSWER KEY*

13) You draw this card in *The Area and Perimeter Game*:



a. Find the area and the perimeter.

Area= 28 square units

Perimeter= 22 units

b. Explain how you found the area.

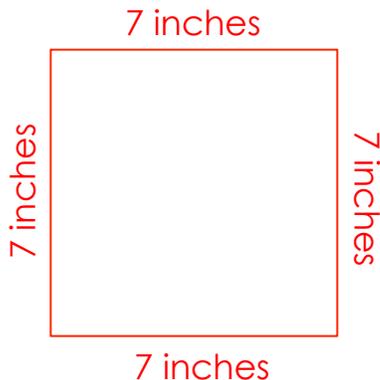
Possible answer: I multiplied 7 X 4 and got 28, so the area is 28 square units.

14) Jocelyn wants to cover a bulletin board with cloth.

The area she wants to cover is 49 square inches.

If Jocelyn wants a square piece of cloth, how long and wide should she cut the cloth?

Draw a picture of the cloth and label the side lengths.

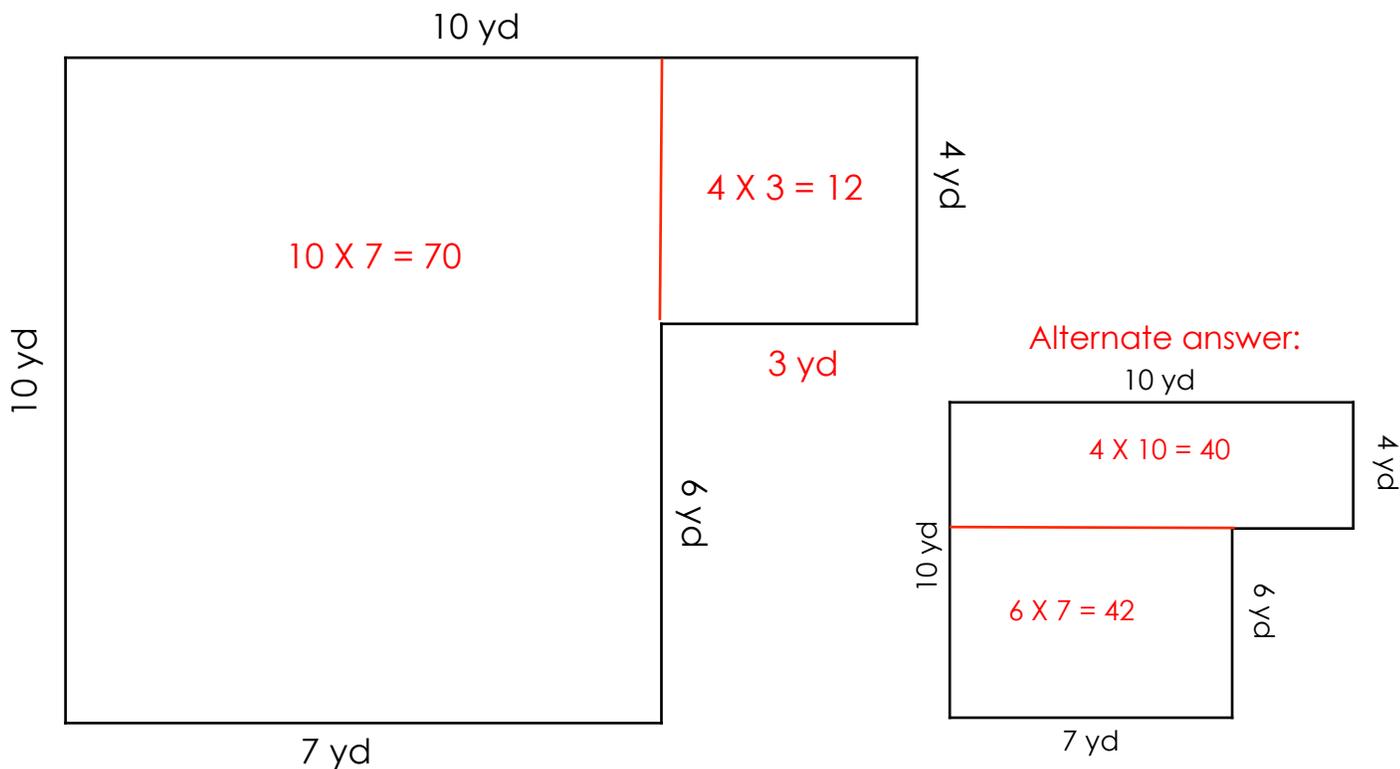


The cloth should be cut 7 inches long and 7 inches wide.
(unit) (unit)

What is the perimeter of the cloth? 28 inches.
(unit)

Unit 8 Cumulative Review (continued) *ANSWER KEY*

- 15) Mr. Portillo's class is figuring out the area of the floor in the science lab. Here is a sketch of the science lab.



Draw a line to make two smaller rectangles you can use to find the area. Show your work. Write the number models you use.

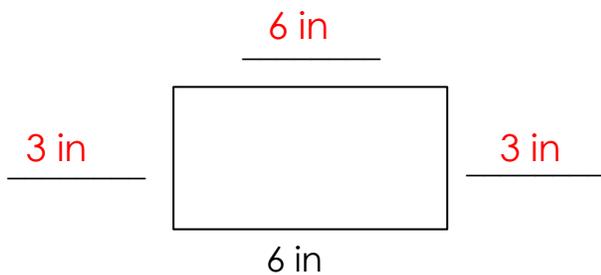
Number models: Possible answers: $10 \times 7 = 70$; $4 \times 3 = 12$; $70 + 12 = 82$

$4 \times 10 = 40$; $6 \times 7 = 42$; $40 + 42 = 82$

The area of the science lab is 82 sq yd.
(unit)

- 16) The perimeter of this rectangle is 18 inches.

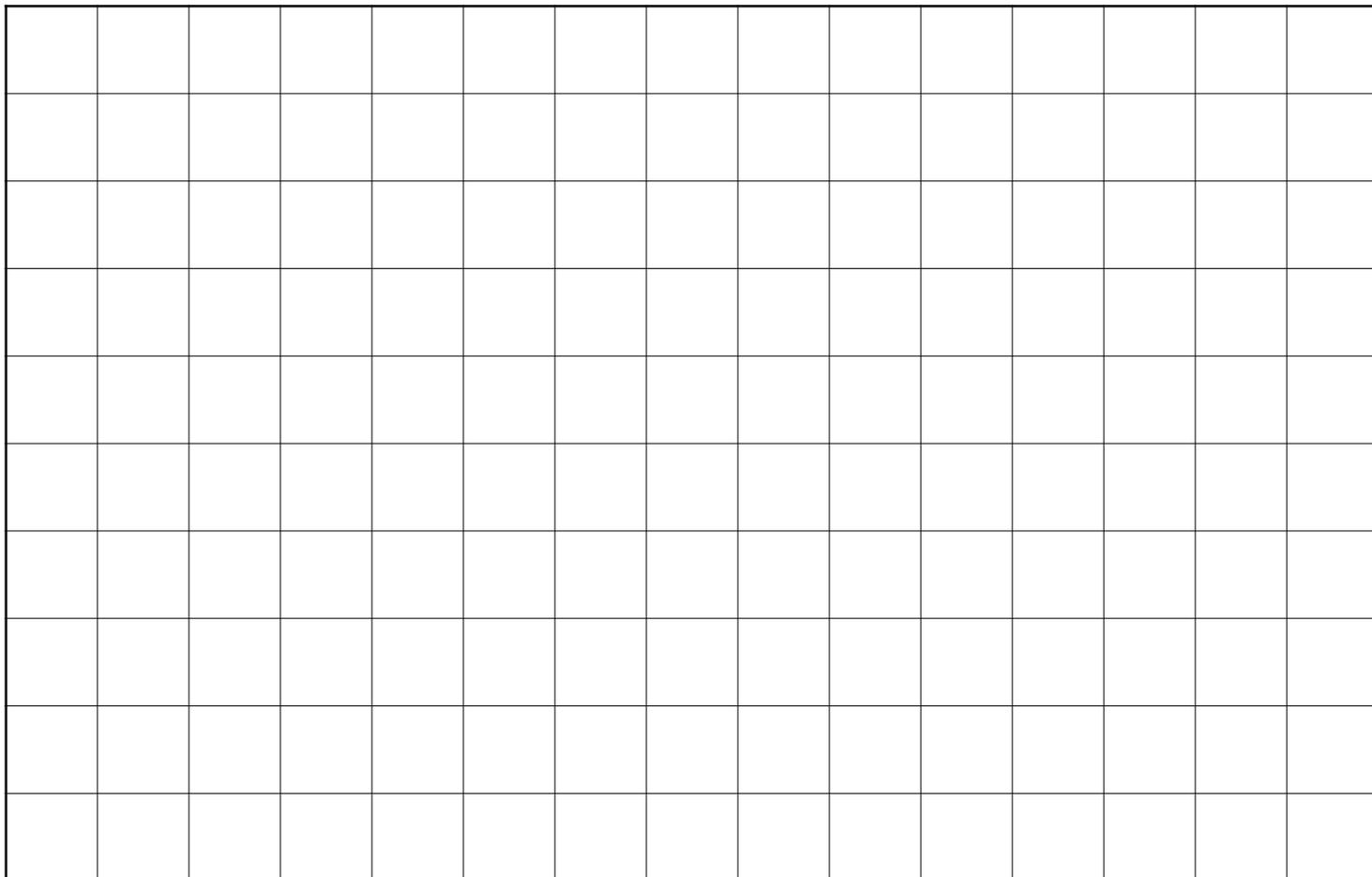
Label the missing side lengths.



Unit 8 Cumulative Review (continued) *ANSWER KEY*

- 17) Draw a rectangle with a perimeter of 20 centimeters.
Then draw a different rectangle with the same perimeter.

Label your rectangles A and B.



= 1 square cm

Answers will vary. Possible dimensions:
 $9 + 9 + 1 + 1$; $8 + 8 + 2 + 2$; $7 + 7 + 3 + 3$;
 $6 + 6 + 4 + 4$; $5 + 5 + 5 + 5$

- b. Explain how you know the perimeters for Rectangle A and Rectangle B are 20 centimeters.

Possible answer: Rectangle A/B is ___ cm long and ___ cm wide. I added

the lengths of the 4 sides.

- c. What is the area of Rectangle A?

Answers will vary.

$9 \times 1 = 9$ sq cm; $8 \times 2 = 16$ sq cm

$7 \times 3 = 21$ sq cm; (unit)

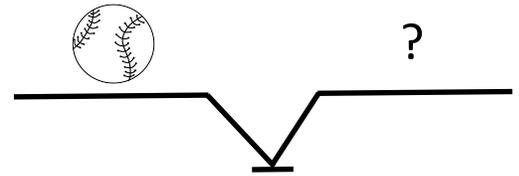
- d. What is the area of Rectangle B?

$6 \times 4 = 24$ sq cm; $5 \times 5 = 25$ sq cm

(unit)

Unit 8 Cumulative Review (continued) *ANSWER KEY*

- 18) The mass of a softball is 184 grams.
Daniel has one 100-gram mass, one 50-gram mass,
five 10-gram masses, and five 1-gram masses
What masses could he use to balance the softball?

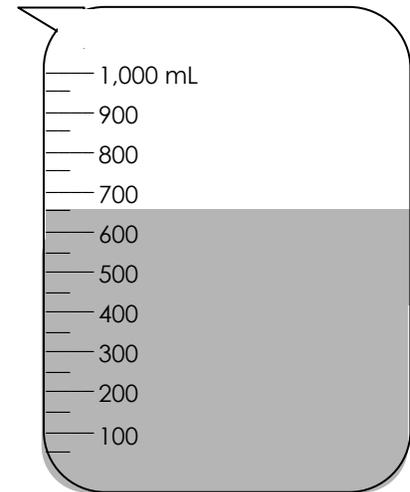


Possible answer: He could use a 100-gram mass, 50 gram mass, three 10-gram masses, and 4 1-gram masses.

- 19) The 1-liter beaker at the right has
650 milliliters of water.

Elizabeth wants to have a full liter of water.
How much more water does she need to add?

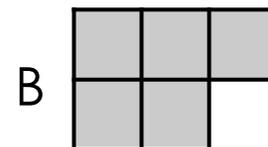
She needs 350 more milliliters of water
to make 1 liter.



- 20) Juan said $\frac{5}{6}$ of Rectangle A is equal to
 $\frac{5}{6}$ of Rectangle B.

Julianna said $\frac{5}{6}$ of Rectangle A is not equal
to $\frac{5}{6}$ of Rectangle B.

With whom do you agree? Explain.



Possible answer: I agree with Julianna because the rectangles are different
sizes. You cannot compare fractions unless the wholes are the same size.