Unit 7 Assessment

Solve. Show your work.

(1) $4 * 2\frac{5}{8} = ?$

(2) $3\frac{1}{2} * 2\frac{4}{5} = ?$

$4 * 2\frac{5}{8} =$ _____

$3\frac{1}{2} * 2\frac{4}{5} =$ _____

(3) Explain the strategy you used to solve Problem 2.
Explain why you chose that strategy.
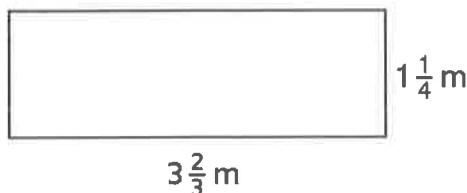
_____

_____

_____

_____

_____

(4) Write a number story that can be modeled by Problem 1.

_____

_____

_____

(5) Reed's class created a mural in the hallway.
The space that they used for the mural is shown
at the right. What is the area of the mural?

$1\frac{1}{4}$ m

$3\frac{2}{3}$ m

Area = _____ m²

Unit 7 Assessment (continued)

Solve Problems 6 and 7 using common denominators. Show your work.
Use multiplication to check your answer.

⑥ $6 \div \frac{1}{4} = ?$ ⑦ $\frac{1}{3} \div 5 = ?$

$6 \div \frac{1}{4} =$ _____ $\frac{1}{3} \div 5 =$ _____

Check: _____   Check: _____

You may use the Quadrilateral Hierarchy Poster to help you solve Problems 8 and 9.

⑧   List as many names for this figure as you can.

_____

_____

⑨   Alex is classifying this figure on the quadrilateral hierarchy.
He thought: *This has four sides, so it is a quadrilateral.*
It has a pair of parallel sides, so it is a trapezoid. Actually,
it has two pairs of parallel sides, so it is also a parallelogram!

a.   Can Alex move the figure down to the Rhombus category? Why or why not?

_____

_____

b.   Can Alex move the figure down to the Rectangle category? Why or why not?

_____

_____

Unit 7 Assessment (continued)

10 Justine made 3 loaves of banana bread.
If one serving is $\frac{1}{8}$ loaf, how many servings does Justine have?

Number model: _____

Answer: _____ servings

11 These numbers show how long Janine's friends spent on homework on Monday night.

$\frac{3}{4}$ hour	$\frac{1}{2}$ hour	$1\frac{1}{4}$ hours	$2\frac{1}{2}$ hours	1 hour	$1\frac{1}{4}$ hours	$\frac{1}{4}$ hour
$\frac{1}{4}$ hour	$\frac{1}{2}$ hour	$\frac{3}{4}$ hour	$\frac{3}{4}$ hour	2 hours	$1\frac{3}{4}$ hours	$\frac{3}{4}$ hour

a. Use the data to create a line plot.

Hours

b. What is the difference between the longest amount of time and
the shortest amount of time it took students to do homework? _____ hours

c. How many students spent an hour or less on homework? _____ students

d. How much time did those students spend on homework combined? _____ hours

Unit 7 Assessment (continued)

12 **a.** Use the given rules to fill in the columns of the table.

in (x) Rule: + 5	out (y) Rule: + 1
0	0

b. Write a rule to describe the relationship between the *in* and *out* numbers.

Rule: _____

c. Write the numbers in the table as ordered pairs. Then plot the points on the grid below. Connect the points with a line.
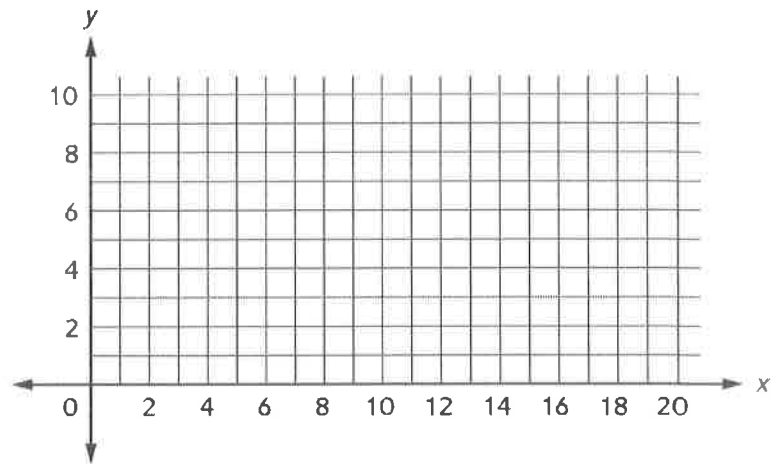
Ordered pairs:

_____

_____

_____

_____

_____

13 The graph in Problem 12c models this situation:
Alexis saves $\frac{1}{5}$ of the money she earns babysitting to buy a new pair of sneakers. Use the graph to answer the following questions.

a. If Alexis has earned $10, how much money has she saved for sneakers?

_____

b. If Alexis has earned $18, about how much money has she saved for sneakers?

_____

Write each statement as an expression.

14. 5 times the sum of 12 and 8.

_____

15. The product of 4 and 10, minus 2.

_____

16. $0.4 * 10^3 =$

Follow the steps to find each number.

17. Write 5 in the tens place.
    Write 7 in the hundredths place.
    Write 8 in the ones place.
    Write 3 in the tenths place.
    Write 1 in the thousandths.

_____ _____ . _____ _____ _____
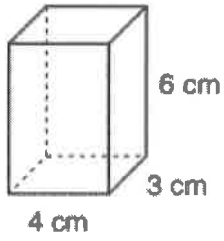
18. Compare.

0.401 _____ 0. 48

19. Compare.

0.1 _____ 0.009

20. 546 / 6 = _____

21. 2628 / 12 = _____

22. Find the volume.

6 cm

3 cm

4 cm

V = _____

Unit 7 Challenge

① City planners want to use some land to create a community farm.
They will divide the land into square plots that are $\frac{1}{12}$ km in length on each side.
There is enough land to make 9 rows of 18 plots.

a. Draw a picture that shows the dimensions of the community farm.
Be sure to label the total length and width of the farm.

b. How many plots will there be on the community farm? _____ plots

c. Explain how to use the number of plots to find the area of the farm.
Check your work using multiplication.

_____

_____

_____

_____

_____

_____

_____

_____

Unit 7 Challenge (continued)

(2) *Scalene triangles* are triangles with all three sides a different length.

   a. Draw a hierarchy that shows the following categories:
Triangles, Isosceles triangles, Equilateral triangles, Scalene triangles.

   b. Explain how you knew where to put Scalene triangles in the hierarchy.

_____

_____

_____

_____

(3) Mr. Watkins has 100 copies of the school lunch menu, but he needs 500 copies. The copy machine makes 70 copies per minute.

   a. Use the rules given at the top of each column to complete the table.
Write a rule to describe the relationship between the two columns.
Use the data in the table to make ordered pairs and graph them on the grid.
Connect the points with a line.

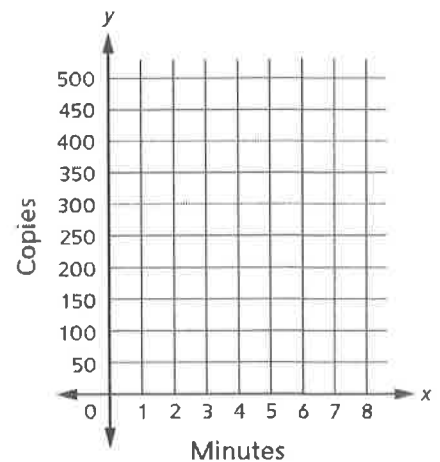| Minutes (x) Rule: + 1	Copies (y) Rule: + 70
0	100

Ordered pairs:

_____

_____

_____

_____

Rule: _____

   b. About how long will it take Mr. Watkins to have 500 copies of the lunch menu?

_____