NAME DATE TIME Lesson 1-13

Unit 1 Self Assessment

Think about each skill listed below. Assess your own progress by checking the most appropriate box.

Skills	I can do this on my own and explain how to do it.	I can do this on my own.	I can do this if I get help or look at an example.
① Evaluate expressions with grouping symbols. MJ1 20 Problem 1			
② Write expressions to model situations. MJ1 26			
③ Find the area of a rectangle with one fractional side length. MJ1 6			
④ Identify objects with volume. MJ1 14 Problem 2			
⑤ Use cubes to find volume. MJ1 19			
⑥ Use formulas to find volume. MJ1 25			
⑦ Find the volume of a figure made of rectangular prisms. MJ1 32			

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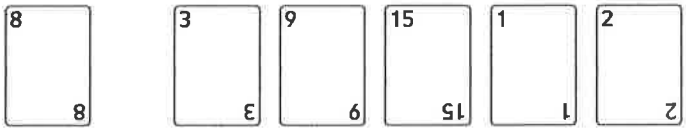
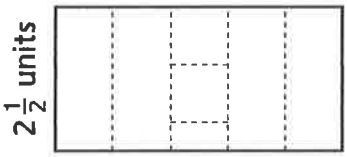
Unit 1 Assessment

(1) Kayla was playing *Name That Number.* She had the cards shown below. Write two different expressions that show how Kayla could play her cards. Use grouping symbols in at least one of the expressions.



Target Number

(2) Find the area of the rectangle. Write a number sentence to show your thinking.



Area = _____ square units

Number sentence

(3) Solve.

a. $12 * (6 + 4) =$ _____

b. $(12 * 6) + 4 =$ _____

c. _____ $= (48 \div 2) + 6$

d. _____ $= 48 \div (2 + 6)$

(4) Circle the items that have volume.

a wiggly line	a trash can	a drawing of a truck
the top of your desk	a coffee mug	a cereal box

Unit 1 Assessment (continued)

⑤ **a.** Jonah filled a box and said its volume was 25 balls.
Shandra filled the same box and said its volume was 36 cubes.

Explain how Jonah and Shandra could get different volumes for the same box.

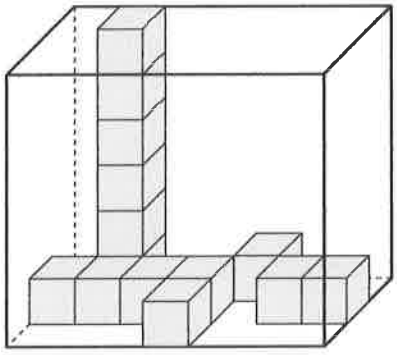
_____

_____

b. Are balls or cubes better for measuring the volume of a rectangular prism? Why?

_____

_____

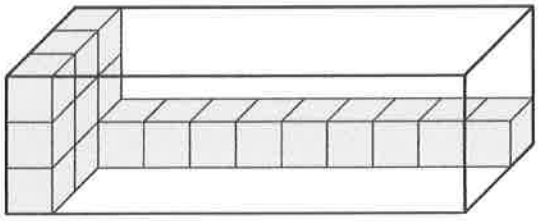
⑥ 

How many cubes would it take to fill this prism?

_____ cubes

What is the volume of this prism?

_____ cubic units

⑦ 

How many cubes would it take to fill this prism?

_____ cubes

What is the volume of this prism?

_____ cubic units

⑧ Compare the strategies you used to find the volume in Problem 6 and in Problem 7. How were they the same? How were they different?

_____

_____

_____

_____

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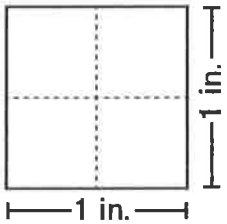
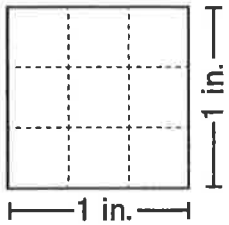
Unit 1 Assessment (continued)

⑨ 4 squares with side length $\frac{1}{2}$ inch fit in 1 square inch.

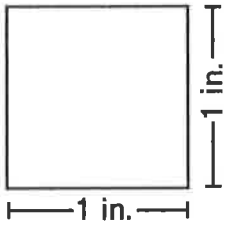


9 squares with side length $\frac{1}{3}$ inch fit in 1 square inch.



How many squares with side length $\frac{1}{4}$ inch will fit into 1 square inch? You may want to draw a picture to help you.

_____ squares



⑩ **a.** What pattern do you notice about the relationship between the side length of the smaller squares and the number of squares that will fit in 1 square inch?

_____

_____

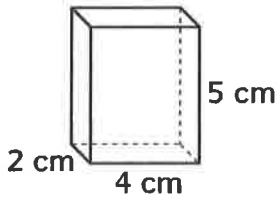
b. Use the pattern to explain how many squares with side length $\frac{1}{8}$ inch would fit into 1 square inch.

_____

_____

Find the volume of each rectangular prism. Remember to include a unit.
Write a number sentence to show how you found the volume.
Use the following formulas to help you: $V = l \times w \times h$ *and* $V = B \times h$.

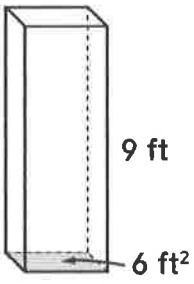
⑪



Volume = _____

_____
(number sentence)

⑫



Volume = _____

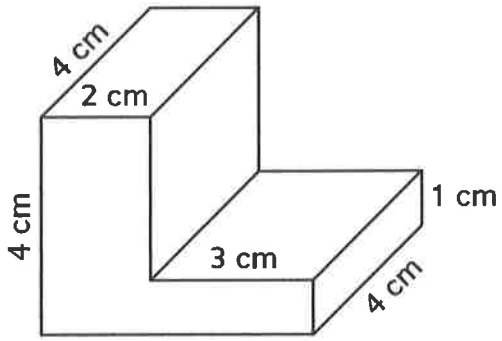
_____
(number sentence)

Unit 1 Assessment (continued)

(13) Alexi was raising money to donate. He earned $23 from his lemonade stand and $7 for watching his neighbor's cat. He donated half the money to the food bank. Write an expression that models the amount of money Alexi donated.

Expression: _____

(14) **a.** Find the volume of this figure. Volume: _____ cm^3

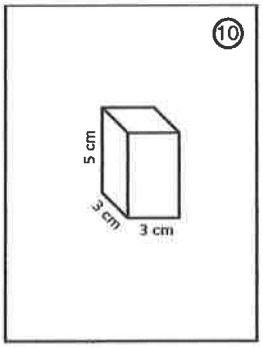


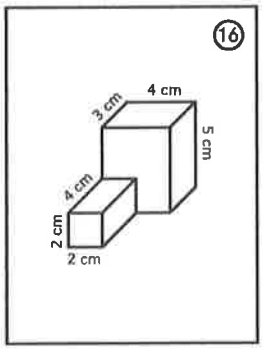
b. Explain how you found the volume. _____

_____

_____

(15) Write the volume of each figure and the number sentence you used to find it. Then circle the card that would win the round of *Prism Pile-Up.* Remember: $V = l \times w \times h$.





$V =$ _____ cubic centimeters

_____
(number sentence)

$V =$ _____ cubic centimeters

_____
(number sentence)

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Unit 1 Challenge

(1) Solve.

a. $8 * [(15 - 9) \div 3)] =$ _____

b. _____ $= \{160 \div (4 * 20)\} * 3$

c. _____ $= [(6 + 2) * (9 + 16)] \div 4$

d. $100 \div \{(2 + 3) * (6 - 4)\} =$ _____

(2) Find the area of the rectangle. Remember to include a unit.

Area = _____

_____
(number sentence)

(3) Annika is making a quilt with squares that are $\frac{1}{2}$ foot in length on each side. The finished quilt will be 4 feet long and $3\frac{1}{2}$ feet wide.

How many quilt squares will Annika need? You may draw a picture to help you.

Answer: _____ quilt squares

What is the area of the quilt? Explain how you got your answer.

_____

_____

_____