

Name

Key

Period

March 7, 2018

Geometry & Measurement Test Review

1 Macy had a toy chest in her room. It was 2 feet tall, 5 feet long and 3 feet wide. Which expression below shows how to correctly find the volume of her toy chest?

A $V = 5 \text{ ft} \times 2 \text{ ft}$

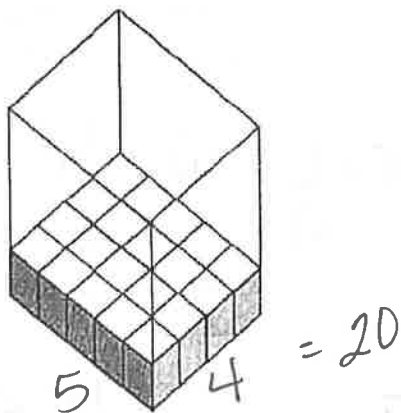
B $V = 5 \text{ ft} \times 5 \text{ ft} \times 5 \text{ ft}$

☒ C $V = 3 \text{ ft} \times 5 \text{ ft} \times 2 \text{ ft}$

D $V = 2 \text{ ft} \times 3 \text{ ft} \times 3 \text{ ft}$

$$V = L \times W \times h$$

2 The picture below shows the base layer of a box that has a volume of 120 cubic units. If 20 square units make up the base layer, how many layers would it take to fill the box?



☒ F 6 layers

G 5 layers

H 20 layers

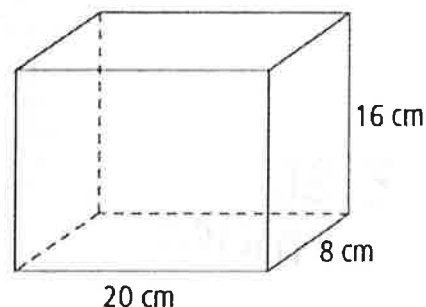
J 400 layers

$$V = Bh$$

$$120 = 20(h)$$

$$h = 6$$

3 What is the volume of the rectangular prism shown below?



$$\begin{array}{r} 20 \\ \times 8 \\ \hline 160 \end{array}$$

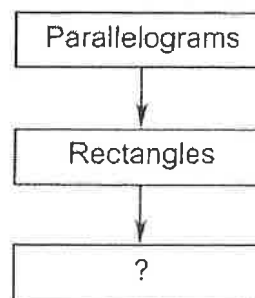
$$\begin{array}{r} 160 \\ \times 16 \\ \hline 2560 \end{array}$$

$$V = L \times W \times h$$

$$20 \times 8 \times 16$$

Volume: 2560 cm^3

4 Which word correctly completes the chart below?



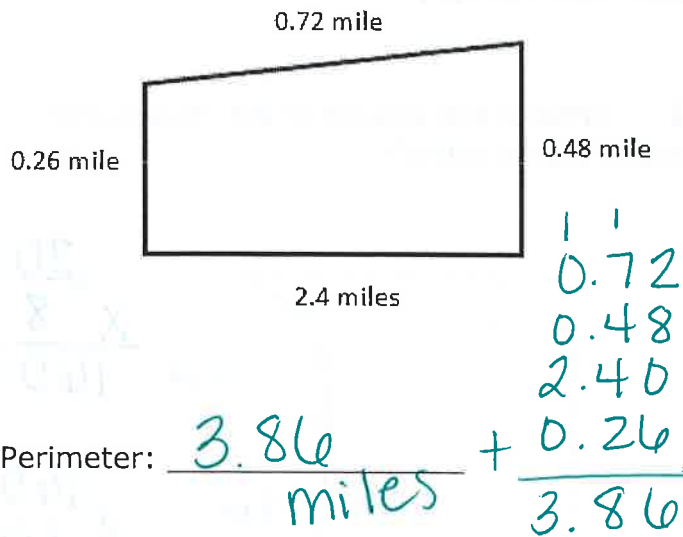
A Rhombuses

☒ B Squares

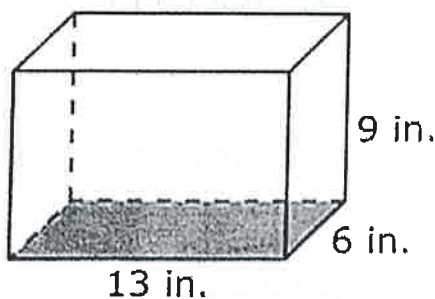
C Trapezoids

D Triangles

- 5 The side lengths of a field are shown below. What is the perimeter of the field?



- 6 A clear file box shaped like a rectangular prism is modeled below. The shaded part represents one base of the box.



A formula for finding the volume of a rectangular prism is $V = Bh$. Which equation can be used to find B , the area of the shaded base of the box in square inches?

F $B = 13 + 6$

G $B = 2(13) + 2(6)$

H $B = \frac{1}{2}(13)(6)$

J $B = (13)(6)$

Handwritten work:

$$\begin{aligned} V &= Bh \\ B &= L \times W \\ 78 &= 13 \times 6 \end{aligned}$$

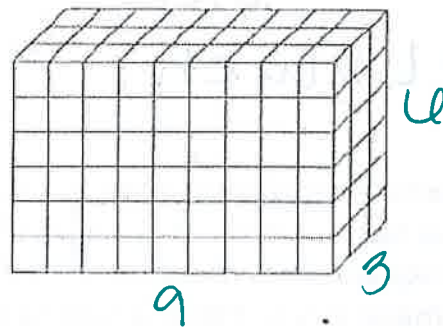
- 7 Jessica sold 128 cups of lemonade at her lemonade stand last summer. How many quarts are in 128 cups?

Handwritten division:

$$\begin{array}{r} 32 \\ 2 \overline{) 128} \\ \underline{64} \\ 64 \\ \underline{64} \\ 0 \end{array}$$

32 quarts

- 8 How many unit cubes are in the rectangular prism below?



Record your answer and fill in the bubbles on your answer document. Be sure to use the correct place value.

Handwritten work:

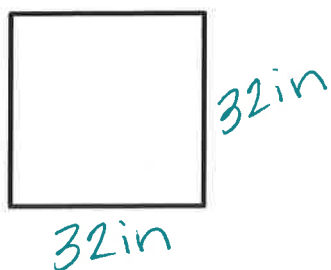
$$\begin{aligned} V &= L \times W \times h \\ 9 \times 3 \times 4 \\ 27 \times 4 \end{aligned}$$

Handwritten multiplication:

$$\begin{array}{r} 27 \\ \times 4 \\ \hline 108 \end{array}$$

1	6	2		
0	0	0	0	0
<input checked="" type="radio"/>	1	1	1	1
2	2	<input checked="" type="radio"/>	2	2
3	3	3	3	3
4	4	4	4	4
5	5	5	5	5
6	<input checked="" type="radio"/>	6	6	6
7	7	7	7	7
8	8	8	8	8
9	9	9	9	9

- 9 The side length of a square is 32 inches. Which statement about this square is true?



F The area of the square is 64 square inches, because $32 \times 2 = 64$

G The area of the square is 1,024 square inches, because $32 \times 32 = 1,024$

H The perimeter of the square is 64 square inches, because $32 \times 2 = 64$

J The perimeter of the square is 160 square inches, because $32 \times 4 = 160$

$$32 \times 4 = 128$$

- 10 Which of the following would NOT require finding the area?

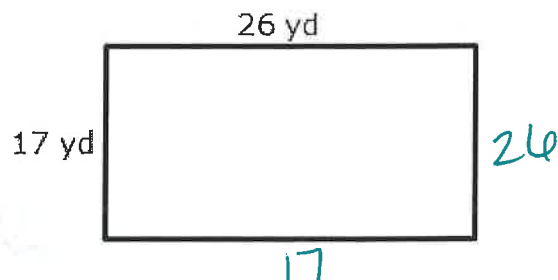
A Determining the amount paper needed to cover a bulletin board

B Determining the amount of paint on a wall

C Determining the amount of carpet on a floor

D Determining the amount of space inside of a locker (volume)

- 11 Find the area and the perimeter of the rectangles below.



Formula: $A = L \times W$; $P = 2L + 2W$

$$P = 86 \text{ yds}$$

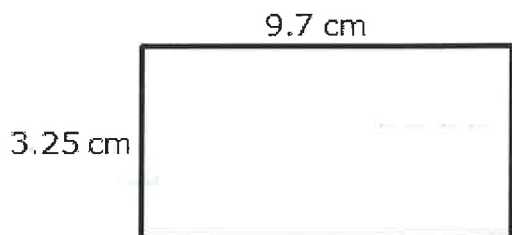
$$A = 442 \text{ yds}^2$$

$$\begin{array}{r} 26 \\ \times 17 \\ \hline 442 \end{array}$$

$$\begin{array}{r} 26 \\ \times 2 \\ \hline 52 \end{array}$$

$$\begin{array}{r} 17 \\ \times 2 \\ \hline 34 \end{array}$$

$$\begin{array}{r} 52 \\ + 34 \\ \hline 86 \end{array}$$



Formula: $A = L \times W$; $P = 2L + 2W$

$$P = 25.9 \text{ cm}$$

$$A = 31.53 \text{ cm}^2$$

$$\begin{array}{r} 3.25 \text{ (2)} \\ \times 9.7 \text{ (1)} \\ \hline 31.525 \end{array}$$

$$\begin{array}{r} 3.25 \\ \times 2 \\ \hline 6.5 \end{array}$$

$$\begin{array}{r} 9.7 \\ \times 2 \\ \hline 19.4 \end{array}$$

$$\begin{array}{r} 31.53 \\ 19.4 \\ + 6.5 \\ \hline 25.9 \end{array}$$

12 A square has a perimeter of 12 inches and an area of 9 square inches. Use the ruler provided to measure the line segment below to the nearest inches. Which line segment could represent a side of this square?

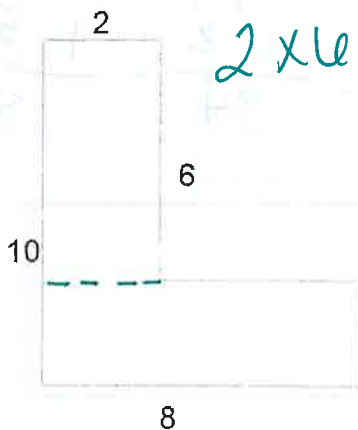
F _____

G _____

H _____

J _____

13 Separate the figure into two rectangles to find the area of the figure.



$$2 \times 6 = 12$$

4

$$8 \times 4 = 32$$

A 32 square units

B 80 square units

C 52 square units

D 20 square units

44 sq units

14 Find the area and perimeter of the squares below.



8 in

$$8 \times 4 = 32$$

Formula: $A = S \times S$; $P = 4S$

$$P = 32 \text{ in}$$

$$A = 64 \text{ in}^2$$

$$8 \times 8 = 64$$

$$\begin{array}{r} 14 \\ \times 4 \\ \hline 56 \end{array}$$



14 in

$$14 \times 4 = 56$$

Formula: $A = S \times S$; $P = 4S$

$$P = 56 \text{ in}$$

$$A = 196 \text{ in}^2$$

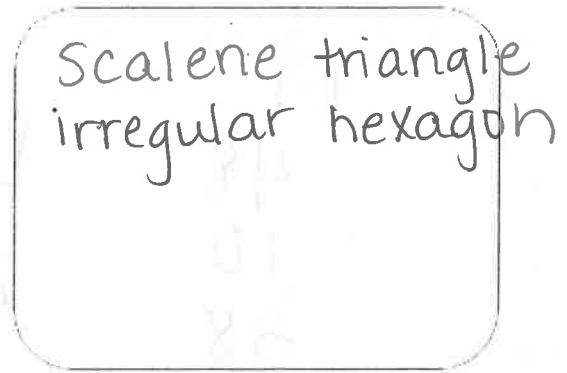
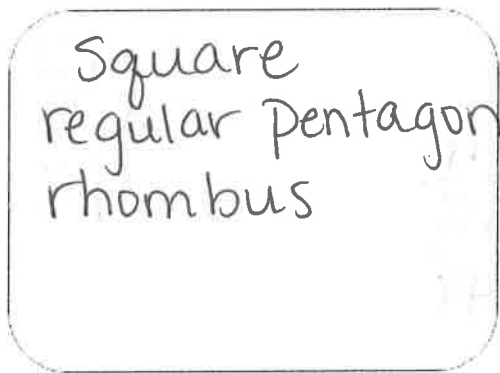
$$14 \times 14 = 196$$

$$\begin{array}{r} 14 \\ \times 14 \\ \hline 56 \\ + 140 \\ \hline 196 \end{array}$$

- 15** Write the words from the word list in the correct circle of the graphic organizer.

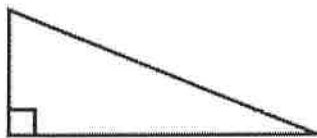
Congruent Sides

Sides Are Not All Congruent

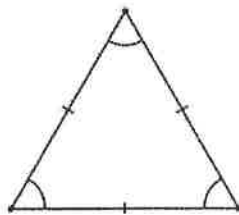


Word List: square, scalene triangle, rhombus, regular pentagon, irregular hexagon

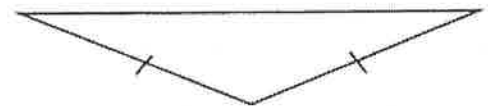
- 16** Classify the triangles by its sides (equilateral, isosceles, or scalene) and by its angles (right, acute, or obtuse).



Scalene
right



equilateral
acute



isosceles
obtuse

18 The lengths of two dogs are given below.

- Golden Shepard: 4 feet = 48 inches
- Miniature Yorkie: 10 inches

What is the difference in the length of these two dogs in inches?

A 7 inches

☒ B 38 inches

C 48 inches

D 14 inches

$$\begin{array}{r} 48 \\ - 10 \\ \hline 38 \end{array}$$

ft		in
1	x 12	12
4	x 12	48

$$\begin{array}{r} 12 \\ \times 4 \\ \hline 48 \end{array}$$

19 Which of the following could NOT be classified as a parallelogram?

A rhombus

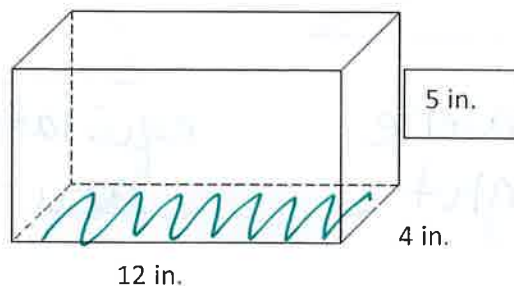
☒ B trapezoid

C rectangle

D square

20 Mrs. Kennedy has a Kleenex box on her desk shaped like a rectangular prism with the dimensions shown in the model.

What is the **area**, in square inches, of the **shaded bottom** of the Kleenex box?



A 32 square inches

B 16 square inches

C 240 square inches

☒ D 48 square inches

$$\begin{array}{r} 12 \\ \times 4 \\ \hline 48 \text{ in}^2 \end{array}$$