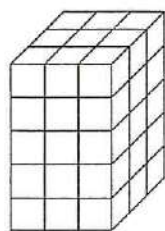


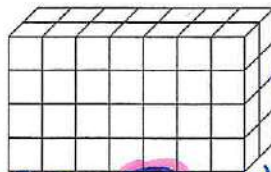
# Benchmark 2 Study Guide- Units 5-7

## Question 1.

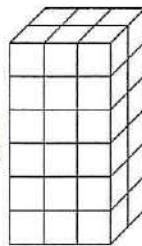
The prisms given below are packed with unit cubes. Which of these prisms has a volume equal to 56 cubic units?



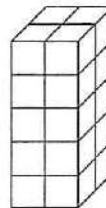
W.



X.



Y.



Z.



represents 1 cubic unit

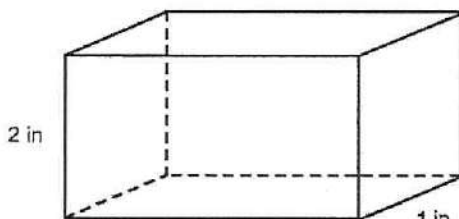
odd #'s: 1, 3, 5, 7, 9, 11, 13, 15  
Pg 1

$$7 \times 8 = 56$$

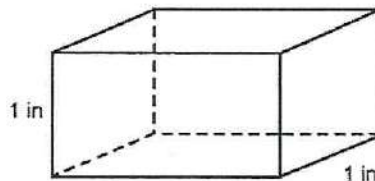
$$7 \times 2 \times 4$$

## Question 2.

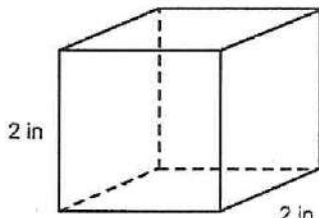
Which figure is a unit cube?



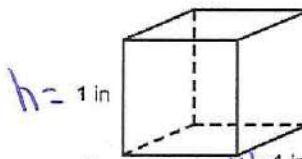
W.



X.



Y.

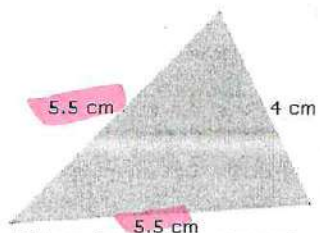


Z.

- A. Y
- B. Z
- C. X
- D. W

## Question 3.

The triangle fits which of the following classifications?



Picture is not drawn to scale.

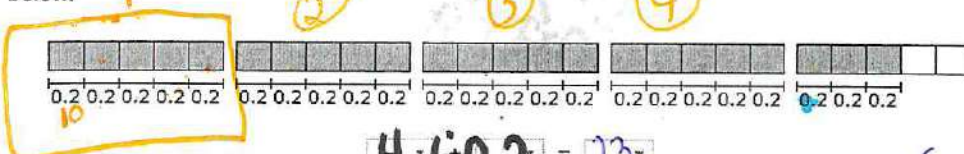
- I. Equilateral
- II. Right
- III. Acute = All angles  $< 90^\circ$
- IV. Isosceles = 2 sides equal

- A. III only
- B. III and IV
- C. I and IV
- D. II and III

Question 4.

Directions: Select the correct answer from each drop-down menu.

Choose the numbers that correctly complete the division equation represented by the model below.



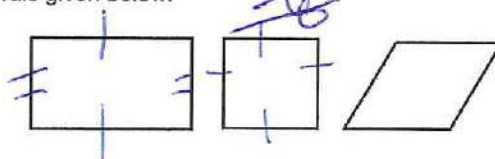
$$4 \div 0.2 = 20$$

$$\begin{array}{r} 20 \\ 0.2 \overline{) 4.0} \\ \underline{4.0} \\ 0 \end{array}$$

Question 5.

Directions: Write your response in the box.

Look at the quadrilaterals given below.



Part A: List three categories that are represented by the attributes of the quadrilaterals given. There must be at least one category that includes all three quadrilaterals.

Part B: Explain why the categories in Part A were selected.

Quadrilateral - All have four sides  
Parallelogram - Two sets of opposite parallel sides  
Polygon - Closed figure + straight sides

Part B: The categories in Part A were selected because they all have four sides, two sets of opposite parallel sides, and they are all polygons.

Question 6.

Which of the following is equal to  $18.3 \div 3$ ?

- A.  $(18 \div 3) \div (3 \div 0.3)$
- B.  $(18 \div 3) - (3 \div 3)$
- C.  $(18 \div 3) - (0.3 \div 3)$
- D.  $(18 \div 3) + (0.3 \div 3)$

$$18.3 \div 3 = 6.1$$

$$\begin{array}{r} 6.1 \\ 3 \overline{) 18.3} \\ \underline{18} \\ 0.3 \\ \underline{0.3} \\ 0 \end{array}$$

$$\begin{array}{r} 6.1 \\ 3 \overline{) 18.3} \\ \underline{18} \\ 0.3 \\ \underline{0.3} \\ 0 \end{array}$$

18.3 / 3 = 6.1

Question 7 .

$$2.6 \times 2.6 = 6.76$$

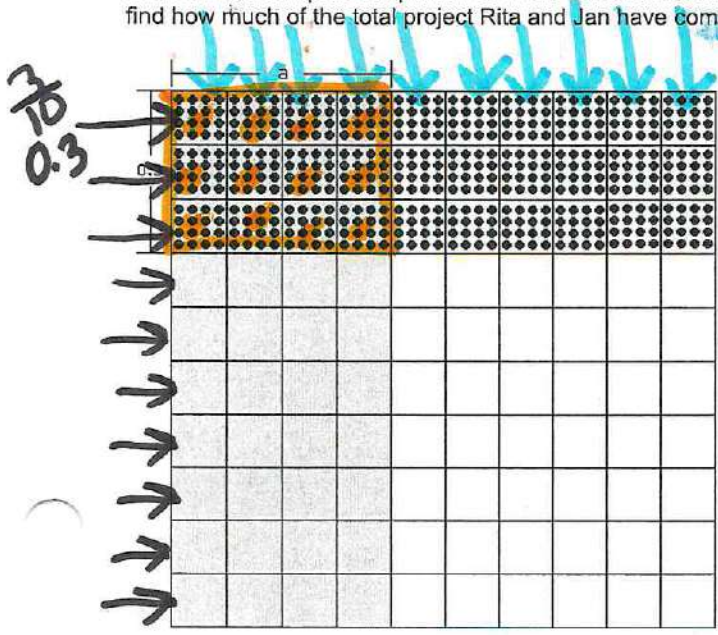
Using the multiplication equation above, solve the division equation below.

$$6.76 \div 2.6 = ?$$

2.6

Question 8 .

Rita and Jan are working on a school project together. Rita has completed 0.3 of her portion, and Jan has completed a portion as well. Use the model to complete the equation below and find how much of the total project Rita and Jan have completed.



$$0.3 \times 0.4 = \boxed{\phantom{00}}$$

Rita and Jan have completed 0.12 of the total project.

$$\frac{12}{100}$$

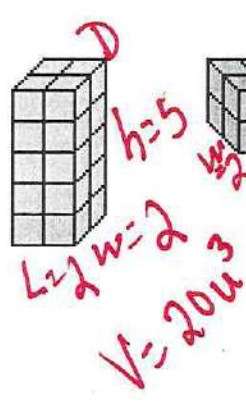
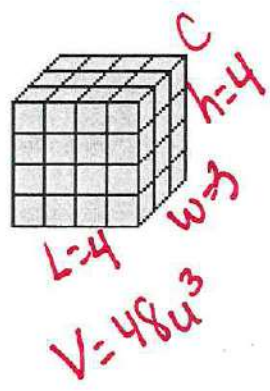
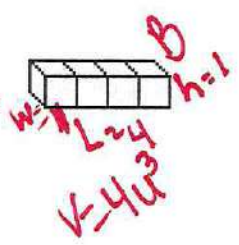
0.12

$$\begin{array}{r} 0.3 \\ \times 0.4 \\ \hline 12 \\ 120 \\ \hline 120 \\ 1200 \\ \hline 12000 \end{array}$$

12000

Question 9 .

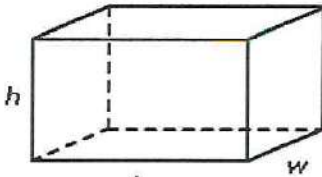
Using the least number of prisms below, choose the prisms that could be joined together to have a volume of 68 cubic units.





Question 10.

In the rectangular prism above,  $l = 31$  inches,  $w = 15$  inches, and  $h = 16$  inches. What is the volume of the rectangular prism?



$V = 7,440$  cubic inches  
 $V = 7,440$  inches cubed

$31 \times 15 \times 16$   
 $31 \times 240$

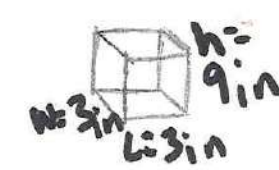
$15 \times 16 = 240$   
 $31 \times 240 = 7440$

Question 11.

A right rectangular prism has a square base with side lengths of 3 inches and a height of 9 inches. What is the volume of the right rectangular prism?

$81 \text{ in}^3$

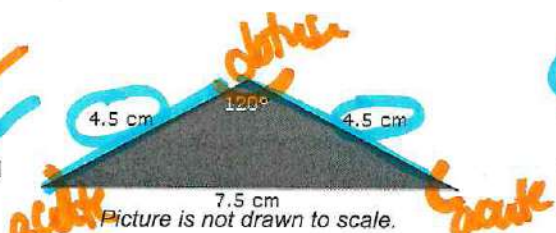
$w = 3 \text{ in}$   
 $L = 3 \text{ in}$



Question 12.

The triangle fits which of the following classifications?

- I. Obtuse
- II. Isosceles
- III. Equilateral
- IV. Scalene



- ☒ A. I and II
- ☐ B. II and III
- ☐ C. II only
- ☐ D. II and IV

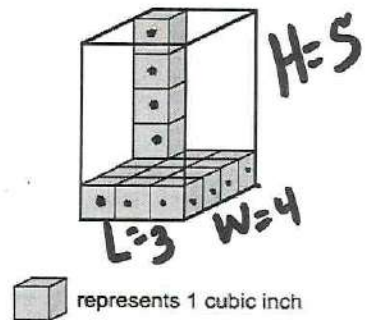
Question 13.

The rectangular prism shown below is packed with unit cubes with side length 1 inch.

What is the volume of the rectangular prism when it is fully packed if there are no gaps or overlaps in the unit cubes?

- 60 in<sup>3</sup>  
 - 60 cubic inches  
 - 60 inches cubed

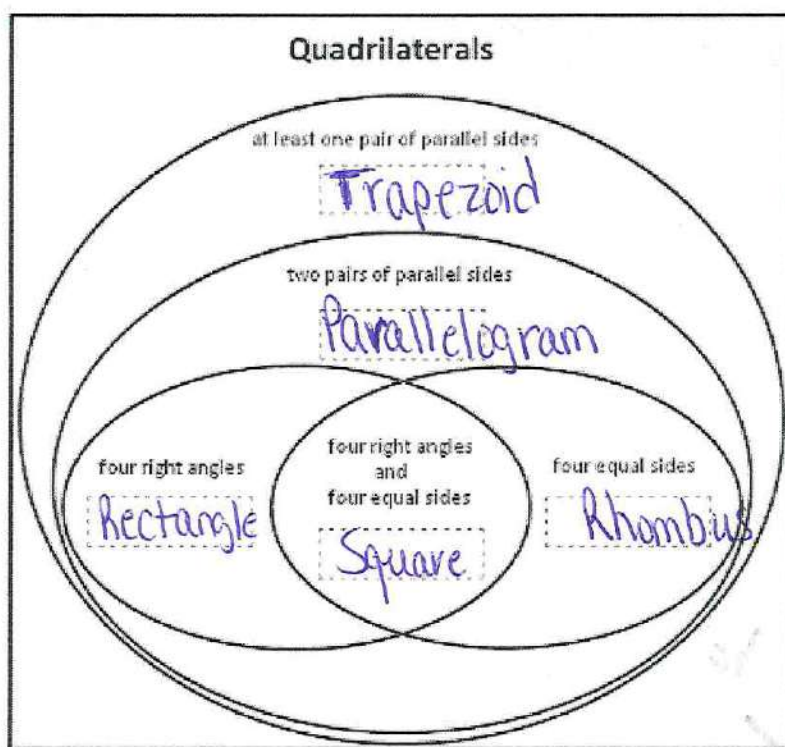
- ☐ A. 12 cubic inches
- ☐ B. 40 cubic inches
- ☐ C. 30 cubic inches
- ☐ D. 60 cubic inches



Question 14 .

Complete the Venn diagram below by placing the correct terms in the boxes.

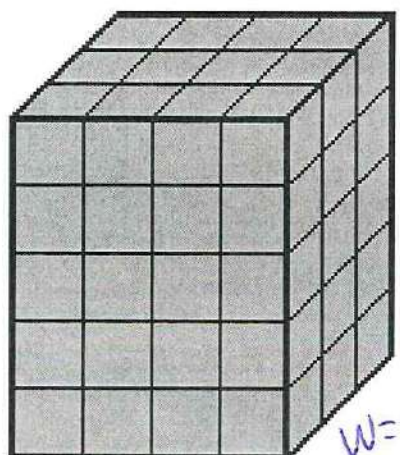
parallelogram    trapezoid    pentagon    rectangle    triangle    square    rhombus



Question 15 .

This rectangular prism is packed with 60 unit cubes, without any gaps or overlaps.

What is the volume of this rectangular prism?



$L = 4$

$W = 3$

$H = 5$

60 u<sup>3</sup>  
60 unit cubes  
60 cubic units

$4 \times 3 \times 5 = 60$  unit cubes

$12 \times 5 = 60$

$V = L \times W \times H$

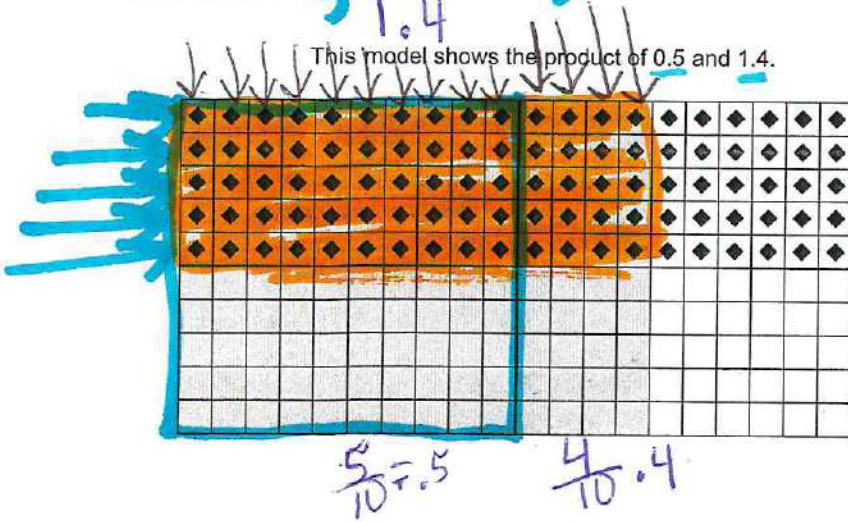
Question 16.

50 dots + 20 dots = 70 dots  
 $\frac{70}{100}$   
 $1.4$

0.70

Pg 6

This model shows the product of 0.5 and 1.4.

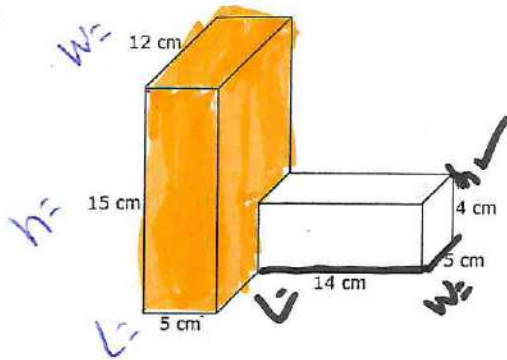


Which equation shows the product of 0.5 and 1.4?

- A.  $0.5 \times 1.4 = 7$
- B.  $0.5 \times 1.4 = 0.19$
- C.  $0.5 \times 1.4 = 0.70$
- D.  $0.5 \times 1.4 = 1.9$

Question 17.

Mia's new desktop caddy is made of two rectangular prisms as shown below.



Complete the equation that can be used to find the total volume of the desktop caddy.

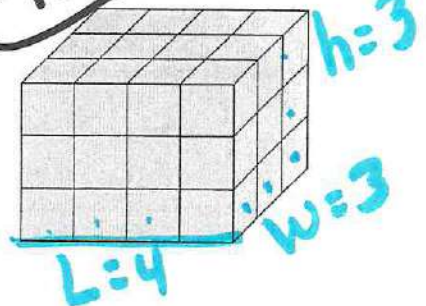
$(15 \text{ cm} \times 12 \text{ cm} \times 5 \text{ cm}) + (14 \text{ cm} \times 5 \text{ cm} \times 4 \text{ cm}) = \text{ } \text{cu cm}$

Handwritten calculations:  
 $60 \times 5 = 300$   
 $300 \times 15 = 4500$   
 $14 \times 5 = 70$   
 $70 \times 4 = 280$   
 $4500 + 280 = 4780$   
 $900 \text{ cm}^3 + 280 \text{ cm}^3 = 1180 \text{ cm}^3$

Question 18.

The rectangular prism is packed with 36 unit cubes, without any gaps or overlaps.

The volume of the rectangular prism is  cubic units.



Handwritten calculation:  
 $4 \times 3 \times 3 = 12 \times 3 = 36$