

KEY

NAME

DATE

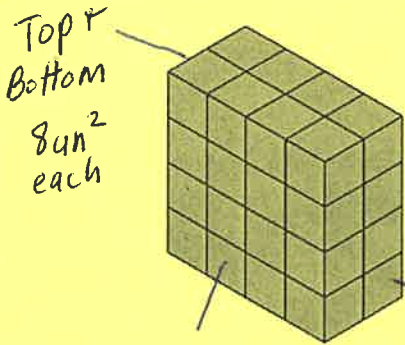
PERIOD

19

Unit 1, Lesson 12

Practice Problems

1. What is the surface area of this rectangular prism?



- A. 16 square units
- B. 32 square units
- C. 48 square units
- D. 64 square units

Top + Bottom  $16un^2$   
 Two Ends  $16un^2$   
 Front/Back  $32un^2$   


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 $64un^2$

2 Ends  $8un^2$  each

all surfaces visible and hidden

2. Which description can represent the surface area of this trunk?

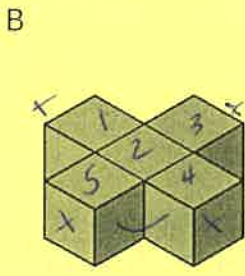
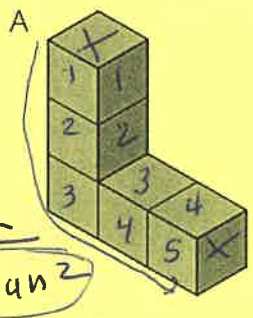
- A. The number of square inches that cover the top of the trunk.
- B. The number of square feet that cover all the outside faces of the trunk.
- C. The number of square inches of horizontal surface inside the trunk.
- D. The number of cubic feet that can be packed inside the trunk.



3. Which figure has a greater surface area?

They are equal

Inside  $L = 4$   
 Outside  $L = 6$   
 Front + Back  $= 2 \cdot 5 = 10$   
 Top + End  $= 2 \cdot 1 = 2$



Top + Bottom  $2 \cdot 5 = 10$   
 Ends  $4 \cdot 1 = 4$   
 Right Angles  $4 \cdot 2 = 8$   


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 $22un^2$

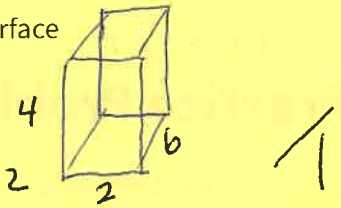
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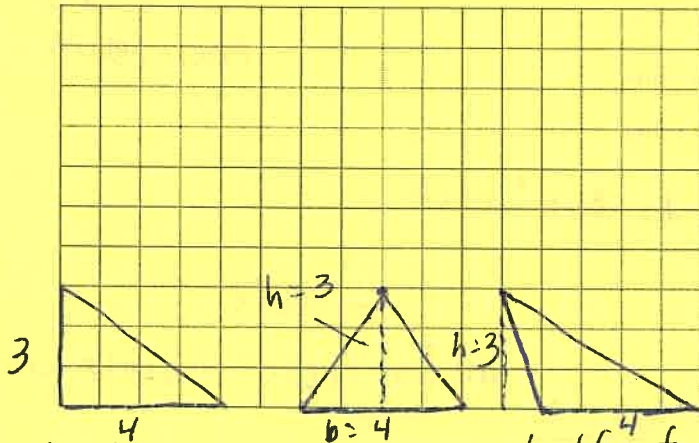
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4. A rectangular prism is 4 units high, 2 units wide, and 6 units long. What is its surface area in square units? Explain or show your reasoning.

Top + Bottom  $2 \times (2 \times 6) = 24$   
 Front + Back  $2 \times (2 \times 4) = 16$   
 2 Sides  $2 \times (6 \times 4) = 48$   
 $\frac{88}{88} \text{ un}^2$



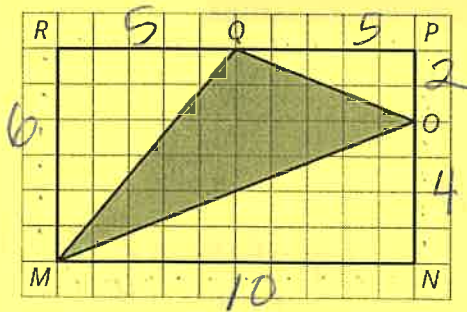
5. Draw an example of each of the following triangles on the grid.



- a. A right triangle with an area of 6 square units. - half of 12
- b. An acute triangle with an area of 6 square units. - half of 12
- c. An obtuse triangle with an area of 6 square units. half of 12

1/3

6. Find the area of triangle **MOQ** in square units. Show your reasoning.

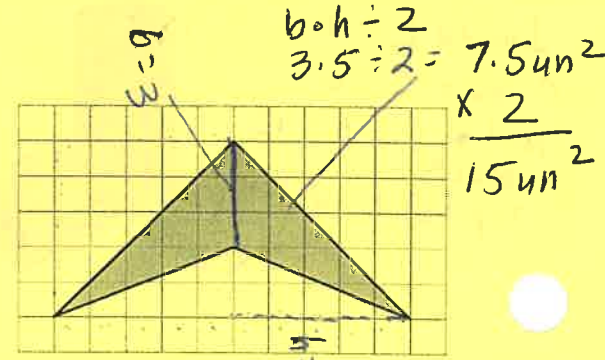


Whole  $10 \cdot 6 = 60 \text{ un}^2$   
 $\triangle 6 \cdot 5 \div 2 = 15 \text{ un}^2$   
 $\triangle 5 \cdot 2 \div 2 = 5 \text{ un}^2$   
 $\triangle 10 \cdot 4 \div 2 = 20 \text{ un}^2$   
 $\frac{40 \text{ un}^2}{60 \text{ un}^2 - 40 \text{ un}^2 = 20 \text{ un}^2}$

Bonus

7. Find the area of this shape. Show your reasoning.

subtract OR enclose  $10 \cdot 5 = 50 \text{ un}^2$   
 $\triangle 5 \cdot 5 \div 2 = 12.5$   
 $\triangle 10 \cdot 2 \div 2 = 10$   
 $50 - 12.5 - 10 = 27.5$



$50 \text{ un}^2$   
 $- 25 \text{ un}^2$   
 $- 10 \text{ un}^2$   
 $\frac{15 \text{ un}^2}{15 \text{ un}^2}$