



Objective: REVIEW

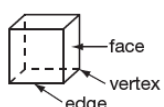
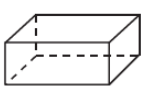
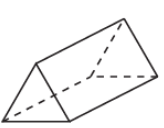
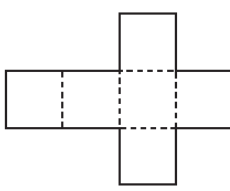
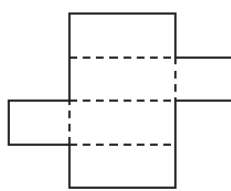
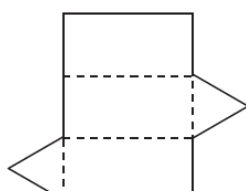
Solve Problems with Area and Solid Figures

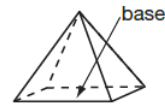
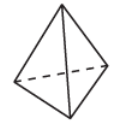
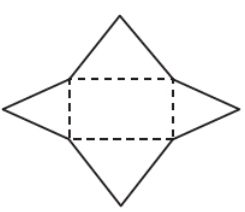
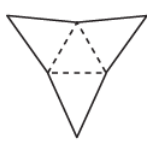
Solid figures, also called three-dimensional figures, are figures that have length, width, and height.

Solid figures can be classified by the number of faces, edges, and vertices they have. A face is a flat surface of a solid figure. An edge is a line segment where two faces of a solid figure meet. A vertex is the point where three or more edges of a solid figure meet. The plural of vertex is vertices.

A net is a flat pattern that can be folded into a three-dimensional figure. A net shows each surface of the solid figure it forms.

A prism is a three-dimensional figure with a pair of parallel faces called bases that are congruent polygons. Its other faces are rectangles or parallelograms.

| Cube | Rectangular Prism | Triangular Prism |
|---|---|---|
|  |  |  |
|  |  |  |
| 6 faces 12 edges 8 vertices | 6 faces 12 edges 8 vertices | 5 faces 9 edges 6 vertices |

| Rectangular Pyramid | Triangular Pyramid |
|--|---|
|  |  |
|  |  |
| 5 faces 8 edges 5 vertices | 4 faces 6 edges 4 vertices |



- A middle school basketball court is 74 feet long and 42 feet wide. What is the area of the basketball court?
 - 232 ft^2
 - $2,808 \text{ ft}^2$
 - $3,018 \text{ ft}^2$
 - $3,108 \text{ ft}^2$
- Carlos is buying carpeting that costs \$22 per square yard. How much will it cost to cover his rectangular living room floor, which is 4 yards wide and 5 yards long?
 - \$198
 - \$220
 - \$440
 - \$484
- Jessica wants to seed her backyard with grass seed. Her yard is 120 feet long and 90 feet wide. If Jessica buys bags of seed that cover 600 square feet, how many bags of seed will she need?
 - 5
 - 18
 - 21
 - 45
- Jack's bedroom is 14 feet long and 11 feet wide. Annie's bedroom is square, with each side measuring 12 feet. Which statement is true?
 - Annie's bedroom is 10 square feet larger than Jack's bedroom.
 - Jack's bedroom is 2 square feet larger than Annie's bedroom.
 - Annie's bedroom is 2 square feet larger than Jack's bedroom.
 - Jack's bedroom is 10 square feet larger than Annie's bedroom.
- A triangular sail has two sides that meet at a right angle. Both sides are 9 yards long. What is the area of the sail?
 - $40\frac{1}{2} \text{ ft}^2$
 - 45 ft^2
 - 81 ft^2
 - 162 ft^2
- A commemorative plaque is in the shape of a trapezoid with a height of 8 inches and bases that measure 12 inches and 15 inches. What is the area of the plaque?
 - 108 in.^2
 - 135 in.^2
 - 150 in.^2
 - 163 in.^2

7. Patel is covering a rectangular-shaped trivet with 1-inch square tiles that cost \$0.15 each. The base of the trivet is 14 inches long and its height is 9 inches. How much will it cost to tile the trivet?

- A. \$1.89
- B. \$1.95
- C. \$18.90
- D. \$19.50

8. A suncatcher has 6 sections. Each section is in the shape of a parallelogram with a base of 12 cm and a height of 8 cm. What is the total area of the sections?

- A. 768 cm^2
- B. 576 cm^2
- C. 432 cm^2
- D. 120 cm^2

9. Brett has a square vegetable garden that measures 18 ft on each side. One bag of fertilizer can cover 54 square feet.

A. What is the area of the vegetable garden? Show your work.

B. How many bags of fertilizer will Brett need to cover the entire garden? Explain how you found your answer.

10. Chan Hee built a deck in the shape of a trapezoid with a height of 10 yards and bases of 12 yards and 16 yards. Circle the number that makes the statement true.

The area of the deck is

| |
|-----|
| 38 |
| 120 |
| 140 |
| 160 |

 square yards.

11. Alanah stained a 60-foot by 40-foot wood floor. Wood stain costs \$27 per gallon and covers 500 square feet per gallon. Use numbers from the box to complete the statements shown below.

The area of the floor is _____ square feet.

Alanah needed to buy _____ gallons of stain.

The total cost of the stain to cover the floor was \$_____.

| |
|-------|
| 4 |
| 5 |
| 108 |
| 135 |
| 1,200 |
| 2,400 |

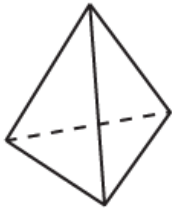
12. Greg used three baking pans: a 9-inch by 13-inch pan, an 11-inch by 15-inch pan, and a 12-inch by 17-inch pan. He compared the areas of the bottoms of the pans. Look at each statement. Is the statement true? Select Yes or No.

- A. The area of the 9-inch by 13-inch pan is 80 square inches greater than the area of the 11-inch by 15-inch pan. Yes No
- B. The area of the 12-inch by 17-inch pan is 39 square inches greater than the area of the 11-inch by 15-inch pan. Yes No
- C. The area of the 11-inch by 15-inch pan is 48 square inches greater than the area of the 9-inch by 13-inch pan. Yes No
- D. The area of the 12-inch by 17-inch pan is 87 square inches greater than the area of the 9-inch by 13-inch pan. Yes No
- E. The sum of the areas of the 9-inch by 13-inch pan and the 11-inch by 15-inch pan is 78 square inches greater than the area of the 12-inch by 17-inch pan. Yes No

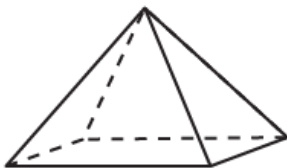


1. Which solid figure has 6 faces?

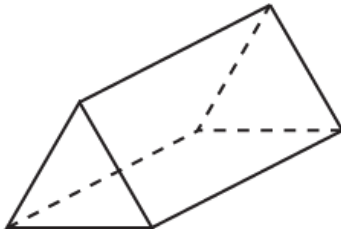
A.



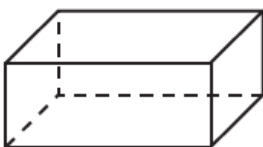
B.



C.



D.



2. Which solid figure has only one base?

A. rectangular pyramid

B. cube

C. rectangular prism

D. triangular prism

3. Which figure has twice as many edges as faces?

A. rectangular pyramid

B. triangular pyramid

C. rectangular prism

D. triangular prism

4. Which of these solid figures can only be made from one type of polygon?

A. triangular prism

B. triangular pyramid

C. rectangular pyramid

D. rectangular prism

5. Which of the following is true about a cube?

I It has 8 vertices.

II It has 6 faces.

III It has 8 edges.

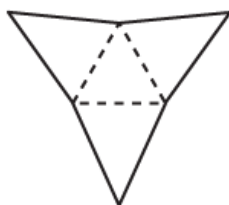
A. I and II

B. II and III

C. I and III

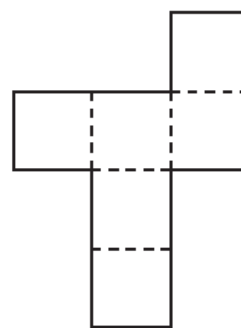
D. I, II, and III

6. Which solid figure can be made from this net?



- A. rectangular prism
- B. rectangular pyramid
- C. triangular pyramid
- D. triangular prism

7. Which three-dimensional figure can be made from this net?



- A. rectangular pyramid
- B. cube
- C. triangular prism
- D. triangular pyramid

8. A triangular pyramid has 4 faces, 6 edges, and 4 vertices. A rectangular pyramid has 5 faces, 8 edges, and 5 vertices.

- A. How many faces, edges, and vertices would a pentagonal pyramid have?

- B. What kind or kinds of polygons would you need to construct a pentagonal pyramid? How many of each kind or kinds of polygons would you need?

9. Compare the number of faces of each solid figure to 6. Write the name of each solid figure in the correct box.

cube

triangular pyramid

triangular prism

rectangular prism

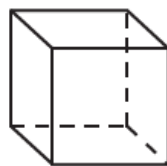
rectangular pyramid

| Less Than 6 Faces | 6 or More Faces |
|-------------------|-----------------|
| | |

10. Draw a line from each number of vertices to the correct solid figure.

A. 5 vertices •

•



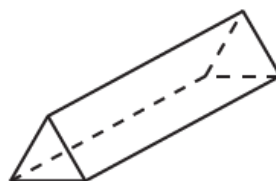
B. 4 vertices •

•



C. 8 vertices •

•



D. 6 vertices •

•



11. Circle every solid figure that has two bases.

A. rectangular pyramid

D. triangular prism

B. cube

E. triangular pyramid

C. rectangular prism

12. Select True or False for each statement.

A. A rectangular prism has 8 vertices.

True False

B. A rectangular prism has 6 faces.

True False

C. A rectangular prism has 8 edges.

True False

D. A rectangular prism has 12 edges.

True False

E. A rectangular prism has 6 vertices.

True False

F. A rectangular prism has 8 faces.

True False



LESSON SE 4c



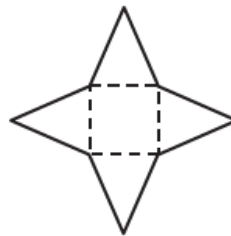
Objective

Mary is a painter. She painted the four walls and the ceiling of a warehouse that was 28 feet long, 20 feet wide, and 8 feet high. The paint she used cost \$22 per gallon and covered 350 square feet per gallon. Select True or False for each statement.

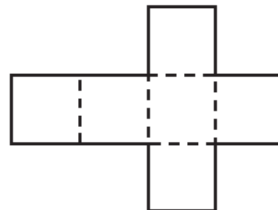
- A. Two of the walls were 28 feet by 8 feet. True False
- B. Two of the walls were 28 feet by 20 feet. True False
- C. The area of one of the walls is 160 square feet. True False
- D. Mary needed 4 gallons of paint. True False
- E. The cost of the paint was more than \$90. True False

Draw a line from the solid figure to its net.

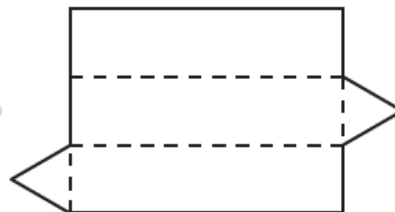
A. square pyramid •



B. triangular pyramid •



C. triangular prism •



D. cube •

