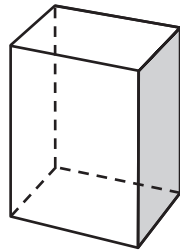


**Write the correct answer.**

**For 1–4, use the figure.**



**1** How many pairs of parallel faces does the figure appear to have?

3

**2** How many faces, vertices, and edges does the figure appear to have?

faces: 6, vertices: 8, edges: 12

**3** Does the figure appear to have any faces that are NOT rectangles? If yes, write how many.

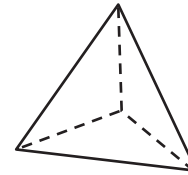
no

**4** Does the figure appear to have any faces that are NOT parallelograms? If yes, write how many.

no

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**For 5–8, use the figure.**



**5** The base of the figure is an equilateral triangle. Must all 4 faces be congruent? Explain how you know.

No; the other 3 faces could

all be isosceles triangles

that are congruent to one

another but not to the base.

**6** How many faces, vertices, and edges does the figure appear to have?

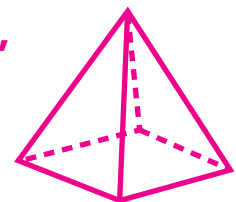
faces: 4, vertices: 4, edges: 6

**7** Describe the figure as completely as possible.

The shape is a triangular pyramid.

**8** Draw a square pyramid. How many more faces, vertices, and edges does a square pyramid have than the figure above?

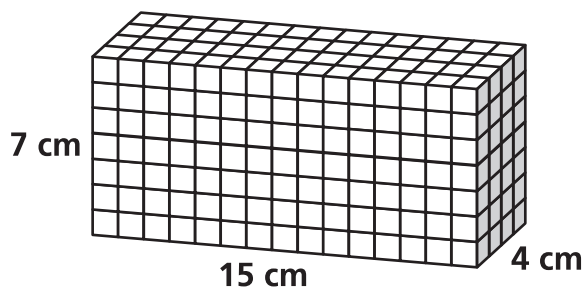
**Check students' drawings.**



1 additional face, 1 additional

vertex, 2 additional edges

**For 9–10, use the rectangular prism.**



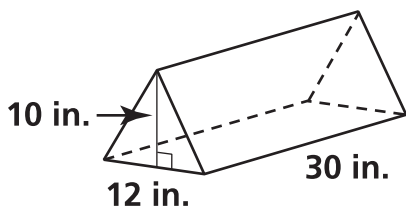
9 What is the area of the base of the prism?

60 sq cm

10 What is the volume of the prism?

420 cu cm

**For 11–12, use the triangular prism.**



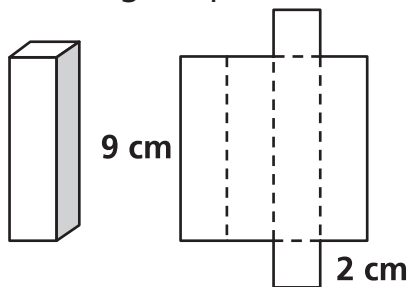
11 What is the area of one triangular base of the prism?

60 sq in.

12 What is the volume of the prism?

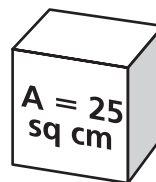
1,800 sq in.

13 Use the net. What is the surface area of the rectangular prism?



80 sq cm

14 The area of each face of the cube is 25 square centimeters. What is the volume of the cube?



125 cu cm

15 The area of the rectangle is 105 square inches. If the length is 8 inches longer than the width, what are the dimensions of the rectangle?



length = 15 in., width = 7 in.

16 The area of a base of a square prism is 16 sq m. The height is 3 times the length of one edge of the base. What are the volume and surface area of the prism?

volume = 192 cu m (area of

base = 16, height = 12, 12 ×

16 = 192); surface area = 224

sq m (area of base = 16, area

of one lateral face = 4 × 12 =

48; (2 × 16) + (4 × 48) = 224)