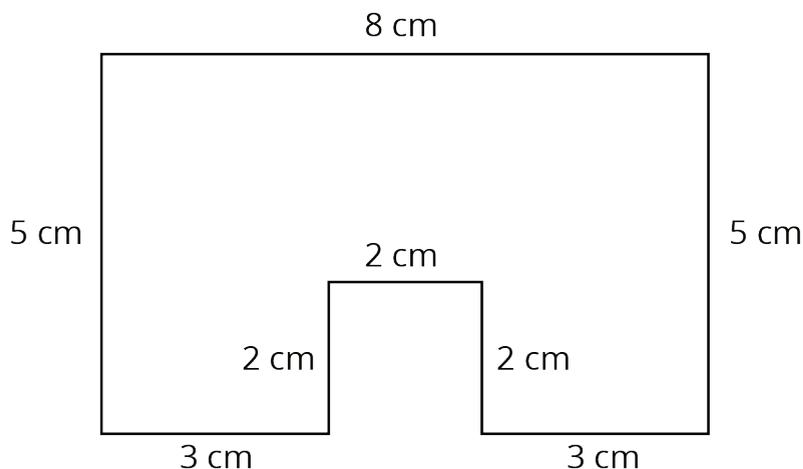


Unit 7 Lesson 15 Cumulative Practice Problems

1. Here is the base of a prism.

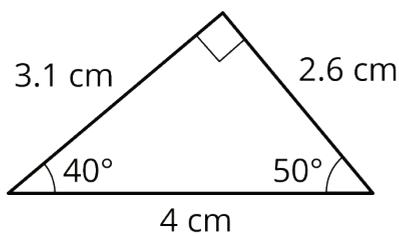


- a. If the height of the prism is 5 cm, what is its surface area? What is its volume?
- b. If the height of the prism is 10 cm, what is its surface area? What is its volume?
- c. When the height doubled, what was the percent increase for the surface area?
For the volume?

2. Select **all** the situations where knowing the volume of an object would be more useful than knowing its surface area.

- A. Determining the amount of paint needed to paint a barn.
- B. Determining the monetary value of a piece of gold jewelry.
- C. Filling an aquarium with buckets of water.
- D. Deciding how much wrapping paper a gift will need.
- E. Packing a box with watermelons for shipping.
- F. Charging a company for ad space on your race car.
- G. Measuring the amount of gasoline left in the tank of a tractor.

3. Han draws a triangle with a 50° angle, a 40° angle, and a side of length 4 cm as shown. Can you draw a different triangle with the same conditions?



(From Unit 7, Lesson 9.)

4. Angle H is half as large as angle J . Angle J is one fourth as large as angle K . Angle K has measure 240 degrees. What is the measure of angle H ?

(From Unit 7, Lesson 3.)

5. The Colorado state flag consists of three horizontal stripes of equal height. The side lengths of the flag are in the ratio 2 : 3. The diameter of the gold-colored disk is equal to the height of the center stripe. What percentage of the flag is gold?



(From Unit 4, Lesson 9.)