For each question, write whether you would measure for length, area, or volume.

1 the amount of space inside a moving van _____

2 the number of tiles needed to cover a bathroom

    floor _____

3 the distance from a porch to a tree _____

4 the amount of water a tank holds _____

5 the height of a flagpole _____
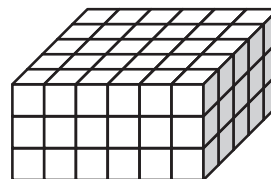
Solve.

6 A box is 5 inches long, 4 inches wide, and 1 inch deep. How much space is inside the box?

_____

7 Aponi built a toy chest for her niece. It has a volume of 12 cubic feet. The chest is 3 feet long and 2 feet wide. How deep is it?
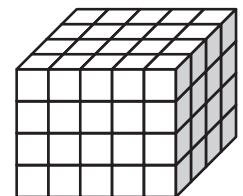
_____

8 The rug in Alan's room has an area of 18 square feet. He is planning to buy another rug that is twice as long and twice as wide. What is the area of the new rug?

_____

9 Each drawer in Monique's nightstand has a volume of 6 cubic decimeters. Each drawer in her dresser is twice as long, twice as wide, and twice as deep. What is the volume of one of Monique's dresser drawers?

_____

10 Fong and Daphne built these structures. Who used more cubes? How many more?

_____

Fong   Daphne

Solve.

1   3.8
   × 5.4

2   0.30
   × 6.7

3   3.3
   × 0.78

4   0.04
   × 7.3

5   0.6
   × 5.14

6   8.3
   × 2.8

Find the unknown dimension or volume of each rectangular prism.

7 $V =$ _____

   $l = 7$ cm

   $w = 4$ cm

   $h = 9$ cm

8 $V = 200$ cu yd

   $l =$ _____

   $w = 5$ yd

   $h = 5$ yd

9 $V = 160$ cu in.

   $l = 10$ in.

   $w =$ _____

   $h = 4$ in.

10 $V =$ _____

   $l = 10$ cm

   $w = 8$ cm

   $h = 6$ cm

11 $V = 297$ cu m

   $l =$ _____

   $w = 9$ m

   $h = 3$ m

12 $V = 126$ cu in.

   $l = 9$ in.

   $w =$ _____

   $h = 7$ in.

13 **Stretch Your Thinking** Give one real world example for
measuring each of the following: perimeter, area, volume.

_____

_____

_____

_____

Relate Length, Area, and Volume