Name _____   Date _____

1. Find the total volume of the figures, and record your solution strategy.

   a.
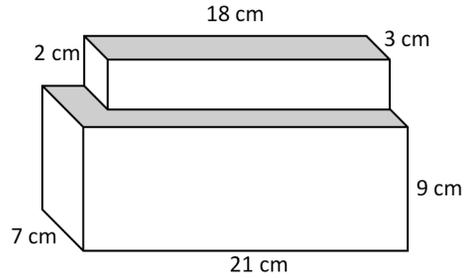

   13 in
   4 in
   5 in   2 in   2 in

   Volume: _____

   Solution Strategy:

   b.

   18 cm
   2 cm   3 cm
   7 cm   9 cm
   21 cm

   Volume: _____

   Solution Strategy:

   c.

   6 mm
   4 mm
   5 mm   4 mm
   8 mm   5 mm
   3 mm   3 mm
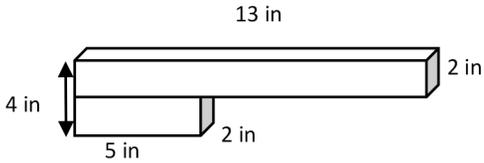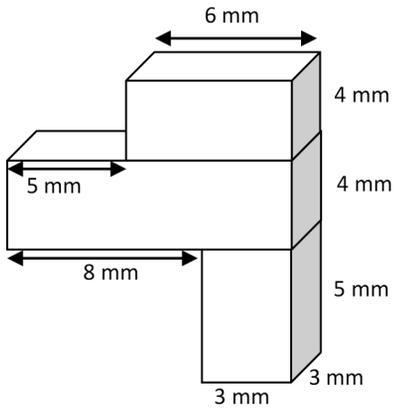
   Volume: _____

   Solution Strategy:
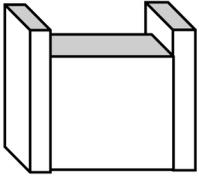
   d.

   12 m
   11 m   9 m
   10 m   4 m
   2 m
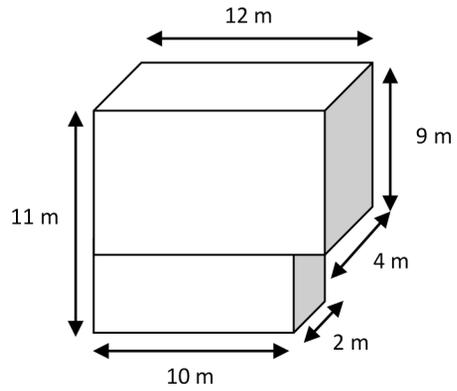
   Volume: _____

   Solution Strategy:

2. A planting box (pictured below) is made of two sizes of rectangular prisms. One type of prism measures 3 inches by 6 inches by 14 inches. The other type measures 15 inches by 5 inches by 10 inches. What is the total volume of three such boxes?

3. The combined volume of two identical cubes is 250 cubic centimeters. What is the measure of one cube's edge?

4. A fish tank has a base area of 45 cm^2 and is filled with water to a depth of 12 cm. If the height of the tank is 25 cm, how much more water will be needed to fill the tank to the brim?
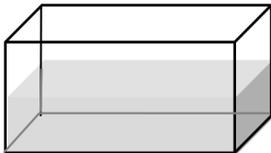
5. Three rectangular prisms have a combined volume of 518 cubic feet. Prism A has one-third the volume of Prism B, and Prisms B and C have equal volume. What is the volume of each prism?

Answer Key

1. a. 72 in^3; strategies will vary.

    b. 1,431 cm^3; strategies will vary.

    c. 369 mm^3; strategies will vary.

    d. 472 m^3

2. 2,124 in^3

3. 5 cm

4. 585 cm^3 or 585 mL

5. A: 74 ft^3; B and C: 222 ft^3