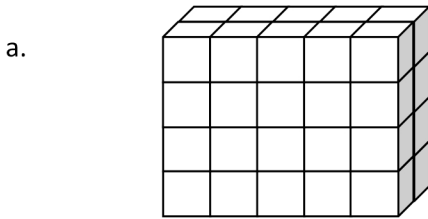Name _____   Date _____

1. Each rectangular prism is built from centimeter cubes. State the dimensions and find the volume.

a.
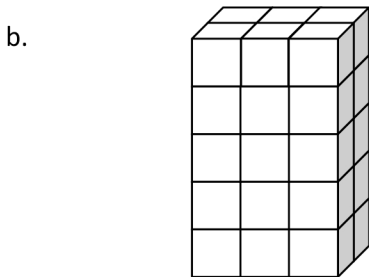
Length: _____ cm
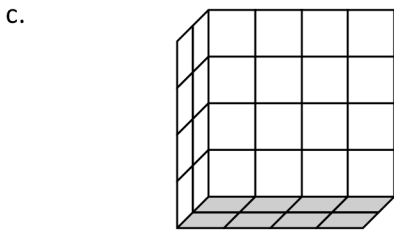
Width: _____ cm

Height: _____ cm

Volume: _____ cm^3

b.

Length: _____ cm

Width: _____ cm

Height: _____ cm

Volume: _____ cm^3

c.

Length: _____ cm

Width: _____ cm

Height: _____ cm

Volume: _____ cm^3

d.
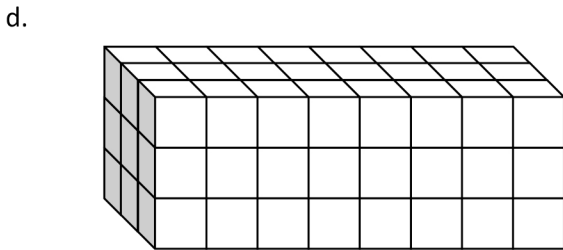
Length: _____ cm

Width: _____ cm

Height: _____ cm

Volume: _____ cm^3

2. Write a multiplication sentence that you could use to calculate the volume for each rectangular prism in Problem 1. Include the units in your sentences.
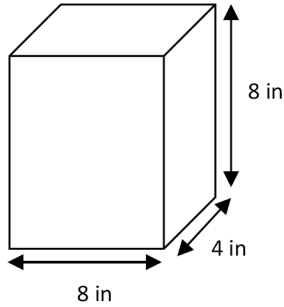
a. _____   b. _____

c. _____   d. _____
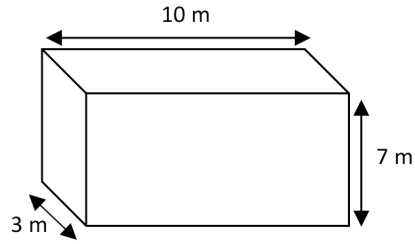
3. Calculate the volume of each rectangular prism. Include the units in your number sentences.

a.

8 in

4 in

8 in

Volume: _____

b.

10 m

7 m

3 m

Volume: _____

4. Mrs. Johnson is constructing a box in the shape of a rectangular prism to store clothes for the summer. It has a length of 28 inches, a width of 24 inches, and a height of 30 inches. What is the volume of the box?

5. Calculate the volume of each rectangular prism using the information that is provided.

a. Face area: 56 square meters

   Height: 4 meters

b. Face area: 169 square inches

   Height: 14 inches

Answer Key

1. a. 5; 2; 4; 40

    b. 3; 2; 5; 30

    c. 4; 2; 4; 32

    d. 8; 3; 3; 72

6. a. 5 cm × 2 cm × 4 cm = 40 cm^3 (or variant)

    b. 3 cm × 2 cm × 5 cm = 30 cm^3 (or variant)

    c. 4 cm × 2 cm × 4 cm = 32 cm^3 (or variant)

    d. 8 cm × 3 cm × 3 cm = 72 cm^3 (or variant)

3. a. 256 in^3

    b. 210 m^3

4. 20,160 in^3

5. a. 224 m^3

    b. 2,366 in^3