

Power Standard 8: PRE-TEST

Vocabulary:

1) Area

- a. The amount of cubic units inside the boundaries of a flat, 2-dimensional object.
- b. The amount of space (square units) inside the boundaries of a flat, 2-dimensional object.
- c. The amount of space (square units) between the highest and the lowest measurements.
- d. The distance around the outside of an object.

2) Base

- a. The height of a 3 dimensional solid.
- b. The amount of space inside the boundaries of a flat, 2-dimensional object.
- c. The surface that a 3 dimensions solid stands on.
- d. The distance around the outside of an object.

3) Cubic

- a. The length of a 3 dimensional solid.
- b. Having 2 dimensions; a term that is used with the measurement of area.
- c. A term that is used with the measurement of liquids.
- d. Having the three dimensions of length, width and height. It is a term that is used with the measurement of volume.

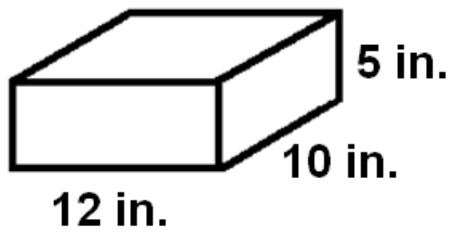
4) Volume

- a. The amount of cubic units inside the boundaries of a 3-dimensional object.
- b. The amount of cubic units inside the boundaries of a flat, 2-dimensional object.
- c. A measure of the loudness or intensity of a sound.
- d. The distance around the outside of an object.

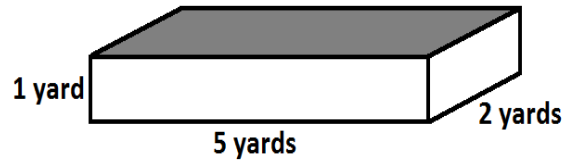
5) Volume Formulas

- a. Length x Width x Height *or* Perimeter of the Base x Height
- b. Length x Width x Height *or* Area of the Base x Length
- c. Length x Width x Height *or* Area of the Base x Width
- d. Length x Width x Height *or* Area of the Base x Height

Find the volume of the following rectangular prisms:

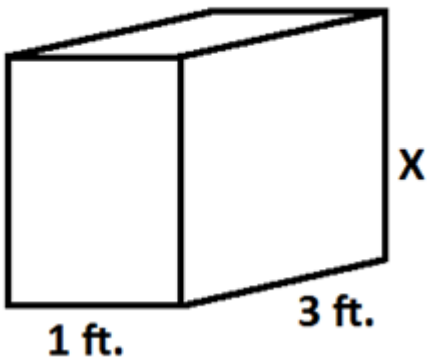


Volume = _____ cubic inches



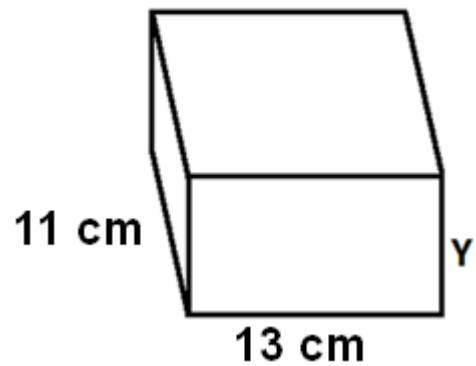
Volume = _____ cubic yards

Volume = 6 cubic feet



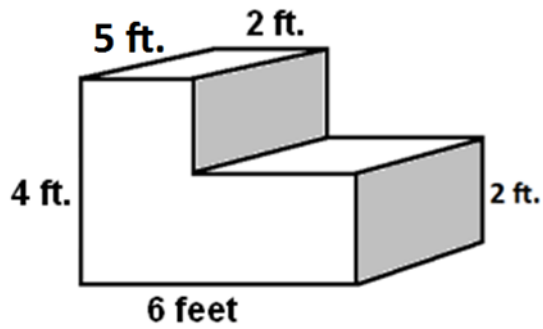
X = _____ feet

Volume = 715 cm^3

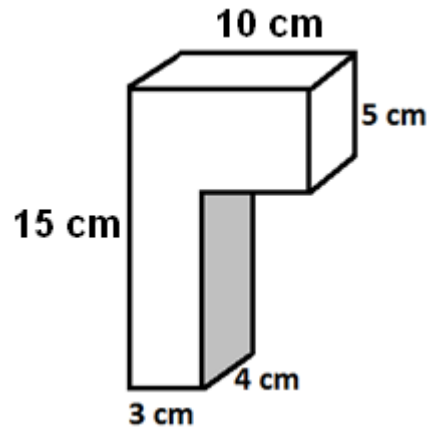


Y = _____ cm

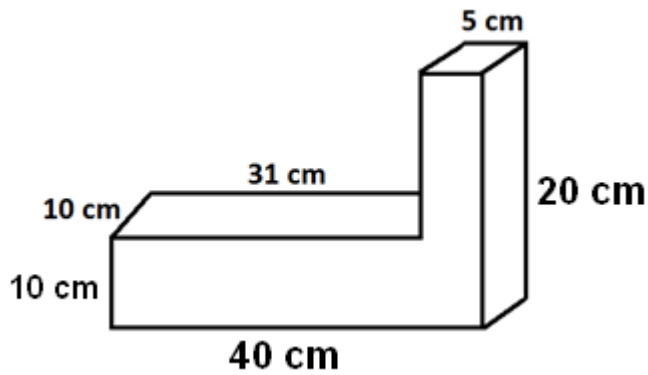
Find the volume of the following non-overlapping rectangular prisms:



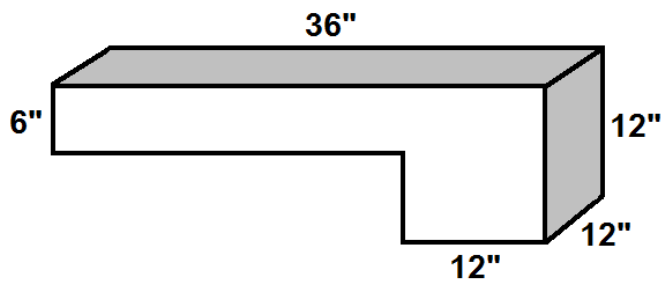
Volume = _____ ft^3



Volume = _____ cm^3



Volume = _____ cm^3



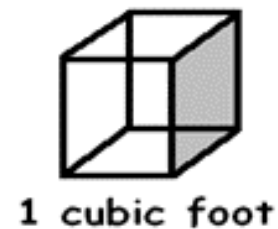
Volume = _____ in^3

14) Jerry is building a swimming pool that will be 22 feet long, 11 feet wide, and 8 feet deep. If a cubic foot can hold 7.48 gallons of water, how many gallons will go into John's pool?

Answer: _____ gallons

15) Mrs. Anderson wants to ship birthday presents (see picture below) to her family in the South. She would like to ship all of her gifts in one box. How many presents will Mrs. Anderson be able to ship in a box that's 7 feet long, 4 feet wide, and 6 feet tall?

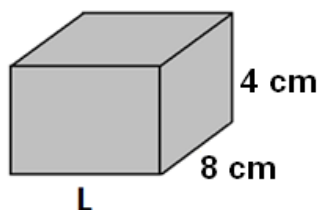
Answer: _____ presents



16) Jill is mailing a set of speakers with a combined volume of 764 cubic inches. The box she will be using to ship her speakers has a base of 84 square inches and a height of 11 inches. The rest of the box will be filled with foam. What is the volume of the foam?

Answer: _____ in³

17) Mr. Renfro shipped a box with a volume of 140 cubic centimeters. Mr. Renfro's box was 8 cm wide and 4 cm high. What was the length (L) of Mr. Renfro's box?



L = _____ cm