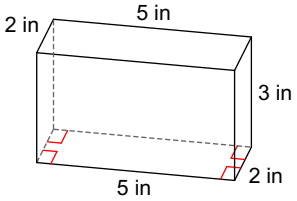
Assignment 3.2 Volume

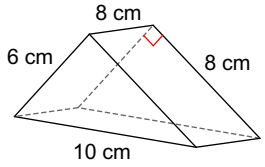
Name_____

Find the volume of each figure. Round your answers to the nearest hundredth, if necessary.

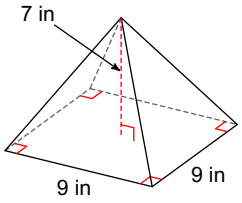
1)



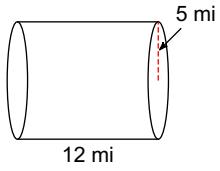
2)



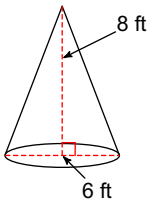
3)



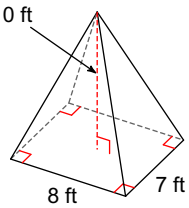
4)



5)



6)



7) Convert 10 cubic yards into cubic feet.

8) Convert 5 cubic km into cubic miles.

9) Convert 70 cubic inches into cubic cm.

10) Convert 14 000 000 cubic cm into cubic yards.

11) Tile costs $2.89 per square foot. Determine the cost of 6 square yards of tile.

12) Insulation costs $12.49 per cubic foot. Determine the cost of $20m^3$.

13) Convert 120km/h into metres per second.

14) Convert $32.69 per square metre into cost per square foot.

15) Jimmy is tiling a rectangular floor with tiles that cover $0.5m^2$. The floor is 16'x10'.

a. Determine the area of the floor in square feet.

b. Convert the area of the floor into square metres.

c. Each tile covers $0.5m^2$. How many tiles does he need?

d. Each tile costs $1.99. Determine the total cost.

16) Jimmy needs to paint 5 cylindrical tanks. They have a height of 6' and a diameter of 4'.

a. Determine the surface area of each tank.

b. he is going to paint all 5 tanks with 2 coats. Determine the total surface area he must paint.

c. A can of paint covers 200 sq feet. How many cans will he need to paint all 5 tanks with 2 coats of paint?

d. Each can costs $26.79. Determine the cost of the paint.

17) A cone shaped teepee has a diameter of 12' and a height of 8'.

a. determine the volume of the teepee in cubic feet.

b. convert the volume into cubic metres.

c. you want to fill 8 teepees with laughing gas. Each can fills $1.5m^3$ of air space. How many cans are needed?

d. each can costs $24.99. Determine the cost to fill 8 teepees with laughing gas.

Answers to Assignment 3.2 Volume

1) 30 in^3
2) 192 cm^3
3) 189 in^3
4) 942.48 mi^3
5) 75.4 ft^3
6) 186.67 ft^3
7) 270 ft^3
8) 1.2 mi^3
9) 1147.09 cm^3
10) 18.31 yd^3
11) $156.06
12) $8821.60
13) 33.333m/s
14) $3.04/sq ft
15) a. 160 square foot b. 14.86m^2 c. 30 tiles d. $59.70
16) a. 100.53 sq feet b. 1005.31 sq ft c. 6 cans d. $160.79
17) a. 301.59 cu ft b. 8.54m^3 c. 46 cans d. $1149.54