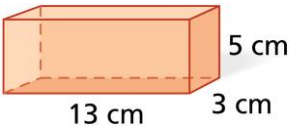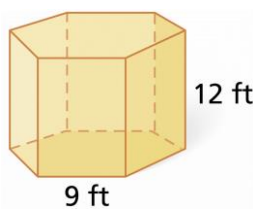**Geometry: 10-6 Notes**

Formula for Volume of a Prism/Cylinder:

Examples:

1) Find the volume of the rectangular prism.

5 cm

13 cm   3 cm

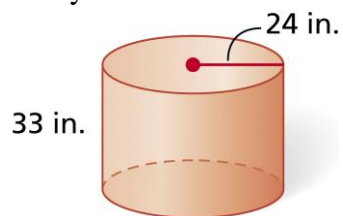2) Find the volume of the right, regular hexagonal prism.

12 ft

9 ft

3) Find the volume of a cylinder with base area 121π cm^2 and a height equal to twice the radius.
Draw a Diagram.

Find the effect on the volume when dimensions are changed…

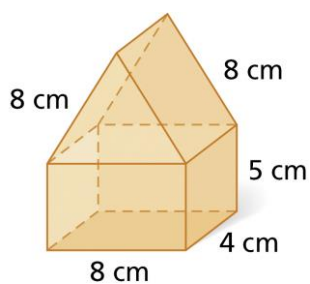| A	B	C	D	
3D Figure	**Volume**	**Change in dim. from column A**	**Volume**	**Ratio (col. B : col. D)**
1. Rect. Prism (3m x 4m x 5m)		All lengths are x 3		
2. Cylinder (r = 2 in, h = 6 in)		All lengths are x $\frac{5}{2}$		
In General…				

4) The radius and height are multiplied by $\frac{2}{3}$. Describe the effect on the volume. Then find the volume of the new cylinder.

- 24 in.

33 in.

Composite Figures

5) Find the volume.

8 cm

8 cm

8 cm

5 cm

4 cm

8 cm

6) Find the volume.

3 cm

5 cm