

Pg. 511 # 1-7 odd, 11

Linear:  $a:b$

Volume:  $a^3:b^3$

Area:  $a^2:b^2$

1)  $\frac{6}{9} \stackrel{?}{=} \frac{10}{15}$  YES, cones are  $\sim$

$$\frac{2}{3} = \frac{2}{3}$$

2)  $\frac{18}{30} \stackrel{?}{=} \frac{8}{15}$  NO, prisms are not  $\sim$

$$\frac{3}{5} \neq \frac{8}{15}$$

3) a) 3:4 b) 3:4 c) 9:16 d) 27:64

5)  $\frac{12,800}{3,200} = \frac{4}{1}$  a) 4:1 b) 16:1 c) 64:1

7)  $\frac{8\pi}{2\pi} = \frac{8}{27}$  Volume  $\sqrt[3]{8} = 2$   
 $\sqrt[3]{27} = 3$

a) 2:3 b) 2:3 c) 4:9

11)  $\frac{4}{6} = \frac{2}{3}$

$$\frac{4}{9} = \frac{36\pi}{x}$$

$$4x = 324\pi$$

$$x = 81\pi \text{ cm}^2$$