

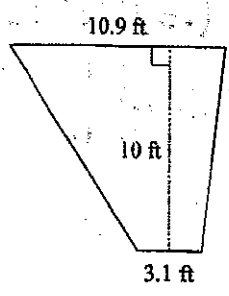
P.551 #6,9

P.546 #2,3

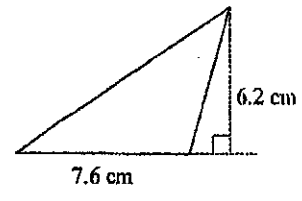
Aero/Brakungupta

Find the area of each.

1)



$$\left(\frac{S_1}{S_2}\right)^2 = \frac{A_1}{A_2}$$



$$A = \frac{1}{2}(7.6)(6.2)$$

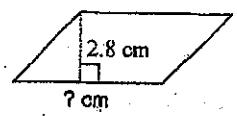
$$= 23.56$$

~~$$A = \frac{1}{2}(3.1)10$$~~

$$A = \frac{1}{2}(3.1 + 10.9) \cdot 10 = 70$$

Find the missing measurement. Round your answer to the nearest tenth.

3)

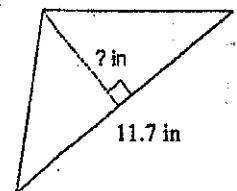


Area = 17.1 cm<sup>2</sup>

$$17.1 = x(2.8)$$

$$x = 6.1$$

4)

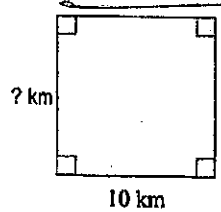


Area = 29.3 in<sup>2</sup>

$$29.3 = \frac{1}{2}(11.7)(x)$$

$$x = 5.008$$

5)

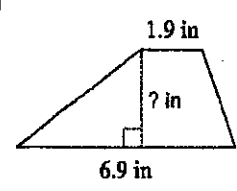


Area = 100 km<sup>2</sup>

$$100 = 10(x)$$

$$x = 10$$

6)



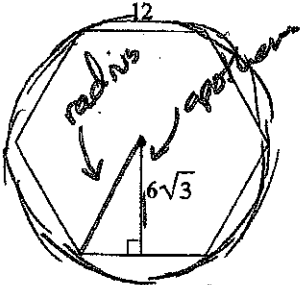
Area = 13.2 in<sup>2</sup>

$$13.2 = \frac{1}{2}(6.9 + 1.9)(x)$$

$$x = 3$$

Find the area of each regular polygon. Leave your answer in simplest radical form.

7)



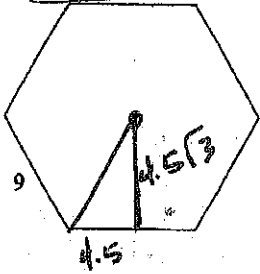
$$a = 6\sqrt{3}$$

$$p = 12 \cdot 6 = 72$$

$$A = \frac{1}{2} (6\sqrt{3}) (72)$$

$$A = 216\sqrt{3}$$

9)



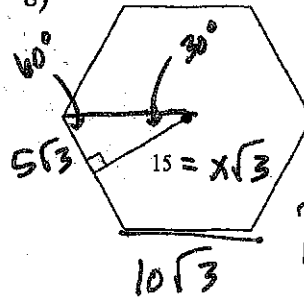
$$a = 4.5\sqrt{3}$$

$$p = 54$$

$$A = \frac{1}{2} (4.5\sqrt{3}) (54)$$

$$A = 121.5\sqrt{3}$$

8)



$$A = \frac{1}{2} a p$$

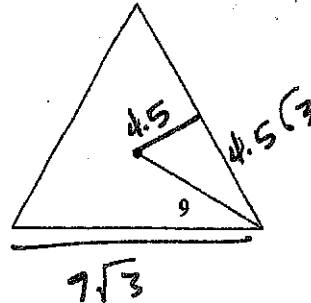
$$A = \frac{1}{2} (15) (60\sqrt{3})$$

$$A = 450\sqrt{3}$$

$$a = 15$$

$$p = (10\sqrt{3})6$$

10)



$$a = 4.5$$

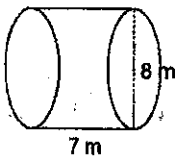
$$p = 27\sqrt{3}$$

$$A = \frac{1}{2} (4.5) (27\sqrt{3})$$

$$A = 60.75\sqrt{3}$$

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

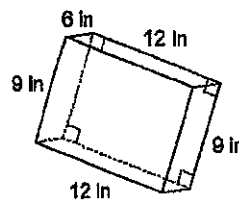
11)



$$V = \pi (4)^2 \cdot 7$$

$$V = 112\pi \text{ m}^3$$

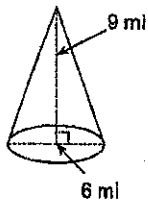
12)



$$V = (12 \cdot 6) (9)$$

$$V = 648 \text{ m}^3$$

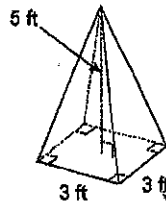
13)



$$V = \frac{1}{3} (\pi 3^2) \cdot 9$$

$$V = 27\pi \text{ mi}^2$$

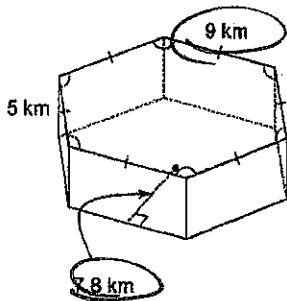
14)



$$V = \frac{1}{3} (3 \cdot 3) \cdot 5$$

$$V = 15 \text{ ft}^3$$

15)



$$V = B \cdot h$$

$$V = \frac{1}{2} ap \cdot h$$

$$V = \frac{1}{2} (7.8)(54)(5)$$

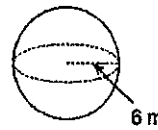
$$a = 7.8$$

$$p = 9 \cdot 6 = 54$$

$$h = 5$$

$$V = 1053 \text{ km}^3$$

16)

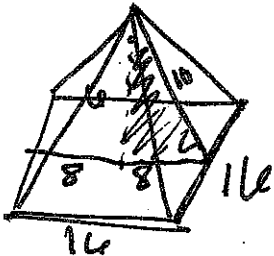


$$V = \frac{4}{3} \pi (6)^3$$

$$V = 288\pi \text{ m}^3$$

Draw a diagram, show your work, and leave your answers in terms of pi.

17) Find the volume of a square-based pyramid if the slant height is 10 in and the height is 6 in.



$$V = \frac{1}{3} B \cdot h$$

$$= \frac{1}{3} (16 \cdot 16) \cdot 6$$

$$= 512 \text{ in}^3$$

Draw a diagram and show your work.

18) The volume of a can of soup is 36 cubic inches. If the height is 5 inches, find the diameter.



$$V = 36 \text{ in}^3$$

$$V = \pi r^2 \cdot h$$

$$\frac{36}{5} = \frac{\pi r^2 \cdot 5}{5}$$

$$\frac{7.2}{\pi} = \frac{\pi r^2}{\pi}$$

$$\sqrt{\frac{7.2}{\pi}} = \sqrt{r^2}$$

$$D = 2r$$

$$D = 3 \text{ in}$$

$$r = 1.514$$

