

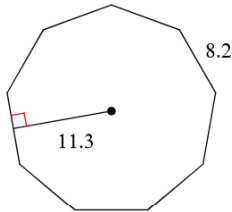
# 11.5 day 1

Wednesday, April 5, 2017 8:45 AM

11.5 day 1

Find the area of each regular polygon. Round your answer to the nearest tenth if necessary.

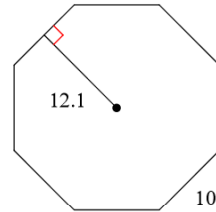
1)



$$A = \frac{1}{2} \cdot 11.3 \cdot 8.2 \cdot 8$$

$$= 417.0$$

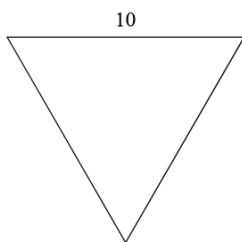
2)



$$A = \frac{1}{2} \cdot 12.1 \cdot 10 \cdot 8$$

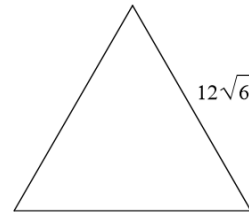
$$= 484$$

3)



$$A = \frac{10^2 \sqrt{3}}{4} = 25\sqrt{3}$$

4)

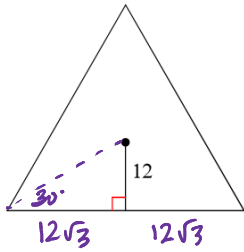


$$A = \frac{(12\sqrt{6})^2 \sqrt{3}}{4}$$

$$= \frac{144 \cdot 6 \cdot \sqrt{3}}{4}$$

$$= 216\sqrt{3}$$

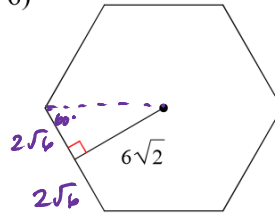
5)



$$A = \frac{(24\sqrt{3})^2 \sqrt{3}}{4}$$

$$= \frac{576 \cdot 3 \cdot \sqrt{3}}{4} = 432\sqrt{3}$$

6)



$$x\sqrt{3} = 6\sqrt{2}$$

$$x = \frac{6\sqrt{2}}{\sqrt{3}} = \frac{6\sqrt{2} \cdot \sqrt{3}}{\sqrt{3} \cdot \sqrt{3}}$$

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

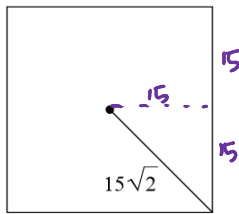
$$= 2\sqrt{6}$$

$$A = \frac{1}{2} \cdot 6\sqrt{2} \cdot 4\sqrt{6} \cdot 6$$

$$= 72\sqrt{12}$$

$$= 144\sqrt{3}$$

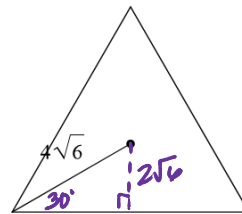
7)



$$A = 30^2$$

$$= 900$$

8)



$$2\sqrt{6}\sqrt{3} = 6\sqrt{2}$$

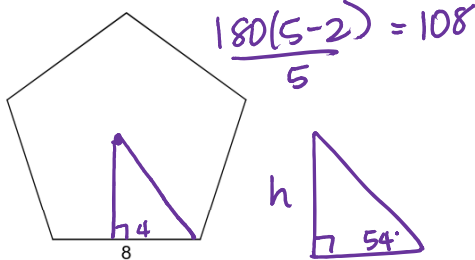
$$= 2\sqrt{18}$$

$$= 6\sqrt{2}$$

$$A = \frac{(12\sqrt{2})^2 \sqrt{3}}{4} = \frac{144 \cdot 2 \cdot \sqrt{3}}{4}$$

$$= 72\sqrt{3}$$

9)



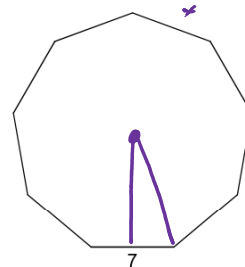
$$\tan 54^\circ = \frac{h}{4}$$

$$h = 4 \tan 54^\circ$$

$$A = \frac{1}{2} \cdot 4 \tan 54^\circ \cdot 8 \cdot 5$$

$$= 110.1$$

10)



$$\tan 70^\circ = \frac{h}{3.5}$$

$$h = 3.5 \tan 70^\circ$$

$$A = \frac{1}{2} \cdot 3.5 \tan 70^\circ \cdot 7 \cdot 9$$

$$= 302.9$$