

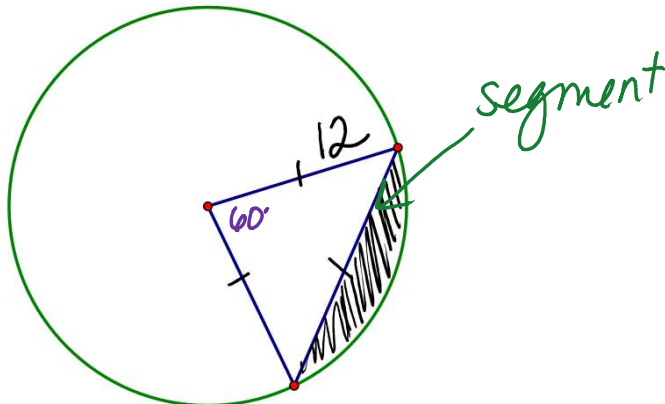
11.6 part 2

Monday, April 10, 2017 9:40 AM

A large area of horizontal blue lines for writing, with a vertical red margin line on the left side.

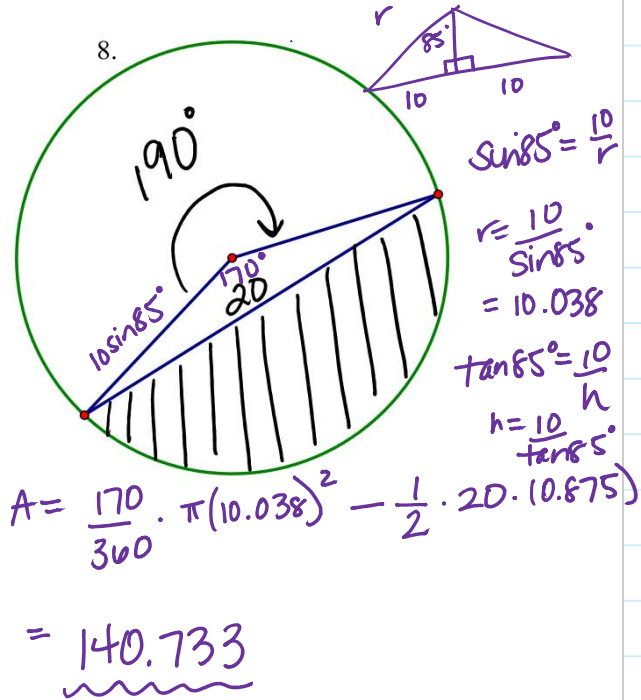
The centers of the following circles are given. Find the area of the shaded region.

7.



$$\begin{aligned} \text{Area} &= A_{\text{sector}} - A_{\triangle} \\ &= \frac{60}{360} \cdot \pi \cdot 12^2 - \frac{12^2 \sqrt{3}}{4} \\ &= 24\pi - 36\sqrt{3} \end{aligned}$$

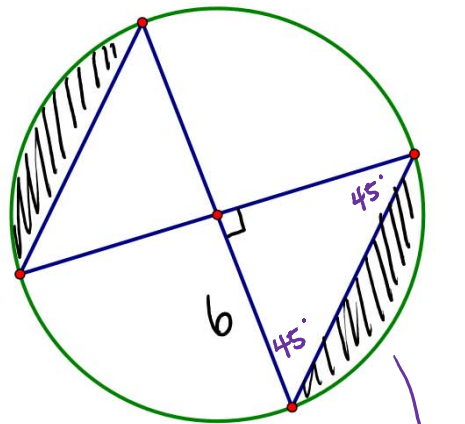
8.



$$\begin{aligned} A &= \frac{170}{360} \cdot \pi (10.038)^2 - \frac{1}{2} \cdot 20 \cdot (10.875) \\ &= 140.733 \end{aligned}$$

$\sin 85^\circ = \frac{10}{r}$
 $r = \frac{10}{\sin 85^\circ} = 10.038$
 $\tan 85^\circ = \frac{10}{h}$
 $h = \frac{10}{\tan 85^\circ} = 10.875$

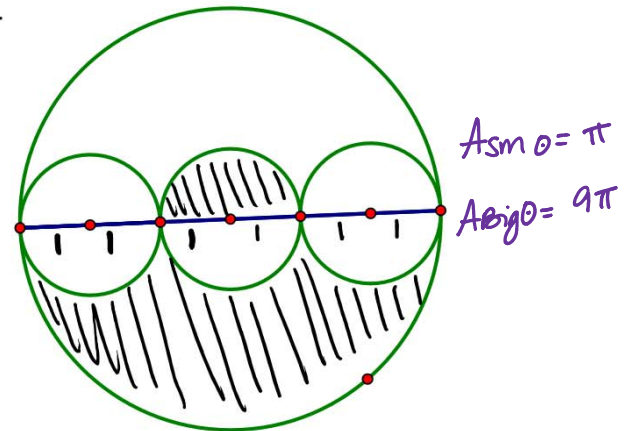
9.



$$\begin{aligned} A_{\text{me}} &= \frac{90}{360} \cdot \pi \cdot 6^2 - \frac{1}{2} \cdot 6 \cdot 6 \\ &= 9\pi - 18 \end{aligned}$$

$$A_{\text{shaded}} = 18\pi - 36$$

10.



$$\begin{aligned} A_{\text{shaded}} &= \frac{9\pi}{2} - 3 \cdot \frac{\pi}{2} + \frac{\pi}{2} \\ &= \frac{7\pi}{2} \end{aligned}$$

$$\begin{aligned} A_{\text{sm}} &= \pi \\ A_{\text{big}} &= 9\pi \end{aligned}$$