Let θ (theta) represent the central angle of a circle. The sector of a circle is the partial area of the circle that contains the central angle and its arc.



For #1-3, the central angle and either the radius are given. How do we show the process for finding the arc length and sector area of each shaded region using proper units?

	Arc Length	Sector Area
1 12in 210°	$\frac{210}{360} \cdot 2 \cdot \pi \cdot 12$ $\frac{360}{=14\pi}$ in ≈ 43.98 in	$\frac{210}{360} \cdot \pi \cdot 12^{2}$ $= 84\pi n^{2}$ $\approx 263.89 \text{ in}^{2}$
2 6 cm 90°	$\frac{90}{360} \cdot 2 \cdot \pi \cdot 6$ $= 3\pi cm$ $\chi 9,42cm$	$\frac{90}{360} \cdot tt \cdot 6^{2}$ $= 9TT cm^{2}$ or $\approx 28.27 cm^{2}$
5 00 10 10 10	$\frac{240}{360} \cdot 2 \cdot TT \cdot 19$ = $\frac{76}{3} \cdot T$ m $\frac{3}{3} \cdot r$ $\frac{1}{2} \cdot 79.59 \text{ m}$	$\frac{240}{360} \cdot \text{tt} \cdot 192$ $= \frac{722 \text{tt}}{3} \text{m}^{2}$ $\approx 756 \cdot 08 \text{m}^{2}$

For #4-9, find the requested measure. Make sure to use appropriate units.

