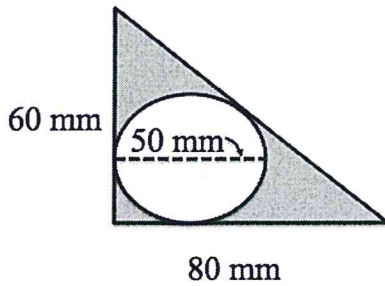


Circles Quiz Review

key

- 1.) Find the Area of the Shaded Region.
Use 3.14 for π . Round to the nearest tenth.



$$A_{\Delta} = \frac{1}{2}(60)(80) = 2400$$

$$A_{\circ} = \pi(25)^2 = 1963.5$$

$$= 2400 - 1963.5 = 436.5 \text{ mm}^2$$

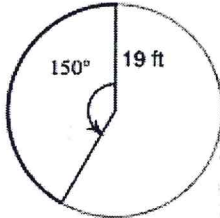
- 3.) Find the diameter of a circle that has an area of 81π . Round to the nearest tenth.

$$81\pi = \pi r^2 \rightarrow \sqrt{r^2} = \sqrt{81}$$

$$r = 9 \quad d = 18$$

Find the length of each arc. Round your answers to the nearest tenth.

5.)



$$L = \frac{150}{360} \cdot 2\pi(19)$$

$$L = 49.7 \text{ ft.}$$

6.)

$$r = 16 \text{ m}, \theta = 75^\circ$$

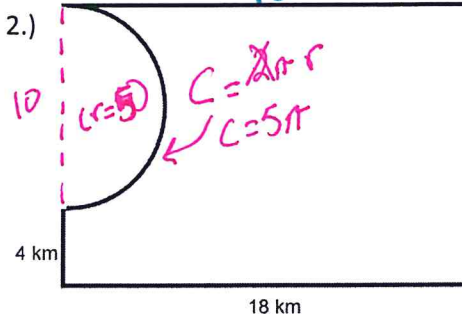
$$L = \frac{75}{360} \cdot 2\pi(16)$$

$$L = 20.9 \text{ m}$$

5. Find the area and perimeter

Round to the nearest tenth.

2.)



$$P = 18 + 14 + 18 + 4 + 5\pi$$

$$P = 69.7 \text{ km}$$

$$A_{\square} = (18)(14)$$

$$A_{\circ} = \pi(5)^2 = 25\pi(\frac{1}{4})$$

$$A_{\text{Total}} = 252 - 39.3 = 212.7 \text{ km}^2$$

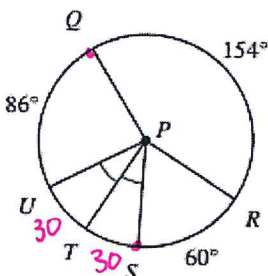
- 4.) Find the radius of a circle that has a circumference of 72π . Round to the nearest tenth.

$$72\pi = 2\pi r$$

$$\frac{72}{2} = \frac{2r}{2} \rightarrow r = 36$$

7.) $m\angle SPQ = 86 + 30 + 30$

$$= 146^\circ$$

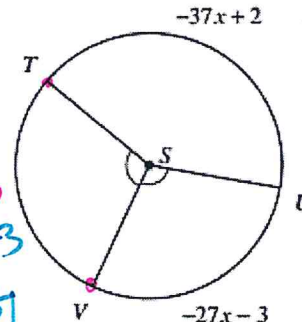


8.)

$$m\angle VST$$

$$\begin{aligned} & -37x + 2 \\ & + -27x - 3 \\ & + -27x + 3 \\ \hline & -91x - 4 = 360 \\ & -91x = 364 \\ & x = -4 \end{aligned}$$

$$m\angle VST = 27(-4) - 3 = 108 - 3 = 105^\circ$$

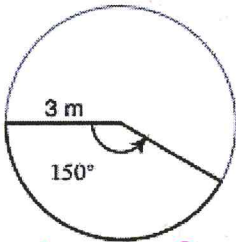


Find the measure of the arc or central angle indicated. Assume that lines which appear to be diameters are actual diameters.

$$\text{Sector Area} = \frac{\theta}{360} \cdot \pi r^2$$

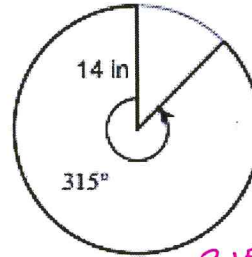
Find the area of each sector. Round your answers to the nearest tenth.

9.)



$$SA = \frac{150}{360} \cdot \pi (3)^2 = \boxed{11.8 \text{ m}^2}$$

10.)



$$SA = \frac{315}{360} \cdot \pi (14)^2 = \boxed{538.8 \text{ in.}^2}$$

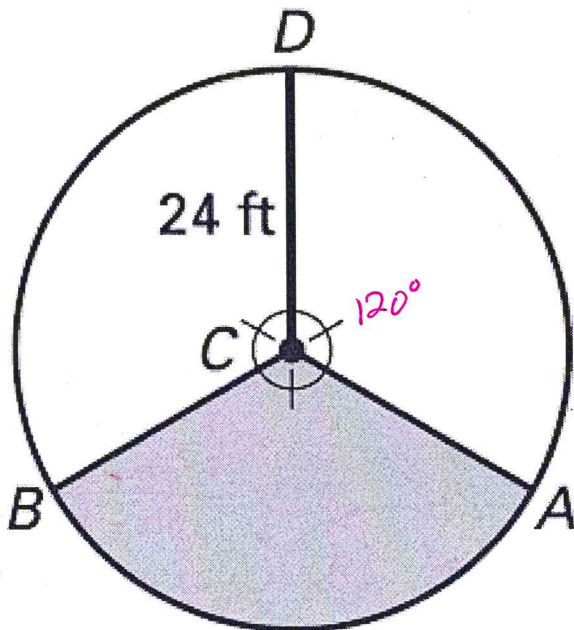
11.)

$$r = 7 \text{ mi}, \theta = 225^\circ$$

$$SA = \frac{225}{360} \cdot \pi (7)^2 = \boxed{96.2 \text{ mi}^2}$$

12.)

Find the area of the perimeter of the shaded AND unshaded regions. Round to the nearest tenth.



Area
Shaded: $\frac{120}{360} \cdot \pi (24)^2$

$$\boxed{\text{Shaded} = 754 \text{ ft.}^2}$$

$$\text{Un} = 754 \times 2$$

$$\boxed{\text{Un} = 1508 \text{ ft.}^2}$$

Perimeter

$$\text{Shaded: } \frac{120}{360} \cdot 2\pi (24)$$

$$\boxed{\text{Shaded} = 62.8 \text{ ft.}}$$

$$\text{Un: } 62.8 \times 2$$

$$\boxed{\text{Un} = 125.6 \text{ ft.}}$$