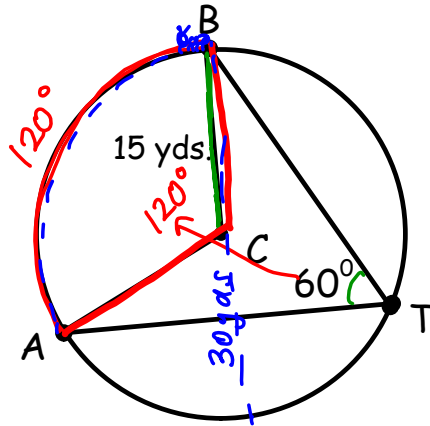


warm-up

give EXACT answers

$$\frac{120^\circ}{360^\circ} = \frac{1}{3}$$



3-11

$$\begin{aligned} \text{Area} &= \pi r^2 \\ \text{area} &= \pi (15)^2 \\ &= 225\pi \text{ sq. yds.} \end{aligned}$$

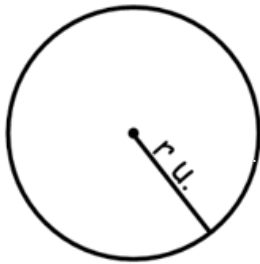
$$m\angle ACB = 120^\circ$$

arc measure
 $m\widehat{BA} = 120^\circ$

$$C = 30\pi \text{ yds}$$

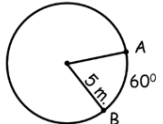
$$\begin{aligned} \text{length of } \widehat{BA} &= \frac{1}{3}(30\pi) \\ &= 10\pi \text{ yds.} \end{aligned}$$

G7 Notes- Areas of Circles and Sectors



The area of a circle is $\frac{\text{radius}^2\pi}{A = r^2\pi}$.

A sector is a portion of the area of the circle.

<p>Example: Find the area of the sector bordered by \widehat{AB}.</p>	
<p>Step 1: Find the area of the circle.</p>	$A = 5^2\pi$ $= 25\pi \text{ sq. m.}$
<p>Step 2: Find the fraction of the circle made up of the sector.</p>	$\frac{60^\circ}{360^\circ} = \frac{1}{6}$
<p>Step 3: Multiply the area by the fraction.</p>	<p>Area of the sector =</p> $\frac{1}{6}(25\pi)$ $= \frac{25}{6}\pi \text{ sq. m.}$