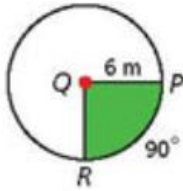


Find the area of each sector. Give your answer in terms of  $\pi$  and rounded to the nearest hundredth.

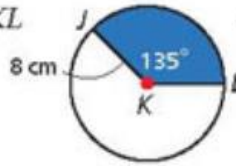
2. sector  $PQR$



$$\pi 6^2 \cdot \frac{90}{360}$$

$$9\pi$$

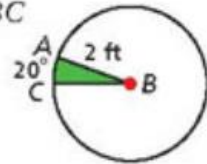
3. sector  $JKL$



$$\pi 8^2 \cdot \frac{135}{360}$$

$$24\pi$$

4. sector  $ABC$

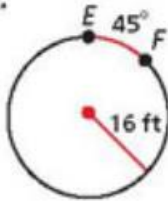


$$\pi 2^2 \cdot \frac{20}{360}$$

$$0.2\pi \text{ or } \frac{2}{9}\pi$$

Find each arc length. Give your answer in terms of  $\pi$  and rounded to the nearest hundredth.

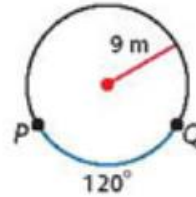
9.  $\widehat{EF}$



$$2\pi 16 \cdot \frac{45}{360}$$

$$4\pi$$

10.  $\widehat{PQ}$



$$2\pi 9 \cdot \frac{120}{360}$$

$$6\pi$$

11. an arc with measure  $20^\circ$  in a circle with radius 6 in.

$$2\pi 6 \cdot \frac{20}{360}$$

$$0.7\pi \text{ or } \frac{2}{3}\pi$$