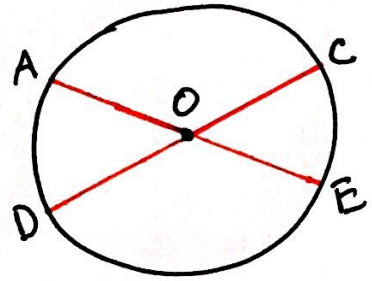
10-6 Note book questions

1) Name the following.

3 minor arcs: $\overset{\frown}{AD}$, $\overset{\frown}{AC}$, $\overset{\frown}{CE}$, $\overset{\frown}{DE}$

3 major arcs: $\overset{\frown}{ACD}$, $\overset{\frown}{CEA}$, $\overset{\frown}{EDC}$, $\overset{\frown}{DAE}$, ...

3 Semicircles: $\overset{\frown}{ACE}$, $\overset{\frown}{CED}$, $\overset{\frown}{EDA}$, $\overset{\frown}{DAC}$



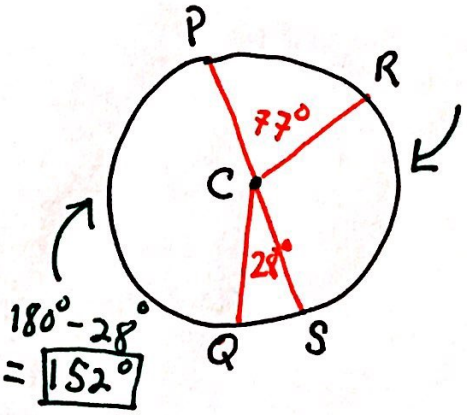
2) Find the measure of the Following arcs.

$m\overset{\frown}{PR} = 77^\circ$

$m\overset{\frown}{RS} = 108^\circ$

$m\overset{\frown}{PRQ} = 208^\circ$

$m\overset{\frown}{PQR} = 283^\circ$

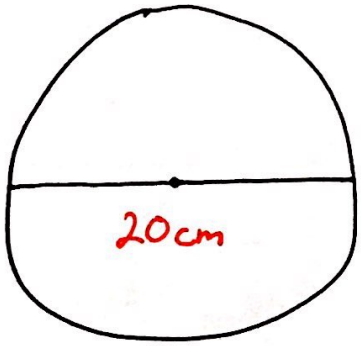


$m\overset{\frown}{RS} = 180^\circ - 77^\circ = 103^\circ$

$m\overset{\frown}{PRQ} = 180^\circ + 28^\circ = 208^\circ$

$m\overset{\frown}{PQR} = 360^\circ - 77^\circ = 283^\circ$

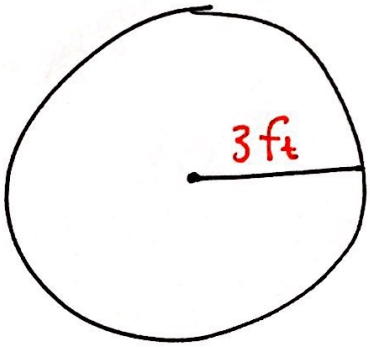
3) Find the circumference. Leave your answer in terms of Pi (π).



$C = D(\pi)$ or $C = 2\pi r$

Since $20\text{cm} = D$

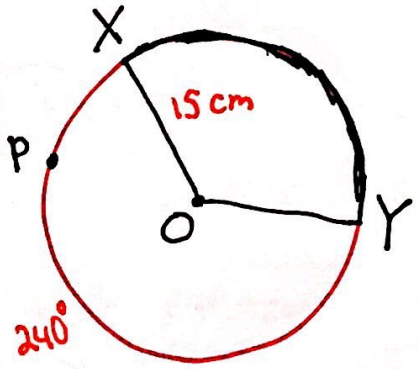
$C = 20\pi$ cm



$C = (2)(\pi)(3)$

$= 6\pi$ ft

4) Find the length of the red arc.



$$\text{arc length} = \frac{m\overset{\frown}{XPY}}{360} \cdot 2 \cdot r \cdot \pi$$

$$= \frac{240^\circ}{360^\circ} \cdot 2 \cdot 15 \cdot \pi$$

$$= \frac{2 \cdot 2 \cdot 15}{3} \cdot \pi$$

$$= 4 \cdot \frac{15}{3} \cdot \pi$$

$$= 20\pi \text{ cm.}$$