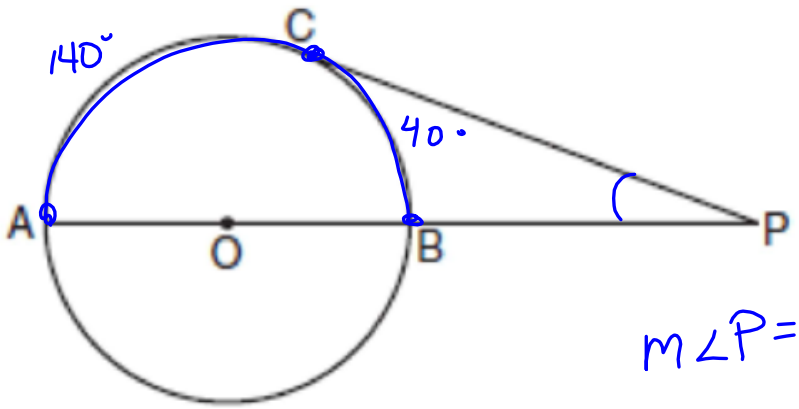
DO NOW

In the accompanying diagram of circle O, diameter $\overline{AOB}$ is extended through B to external point P, tangent $\overline{PC}$ is drawn to point C on the circle, and $\text{m}\overset{\frown}{AC} : \text{m}\overset{\frown}{BC} = 7:2$. Find $\text{m}\angle CPA$.

$7x + 2x = 180$

$9x = 180$

$x = 20$



(Not drawn to scale)

$m\angle P = \frac{1}{2}(\overset{\frown}{AC} - \overset{\frown}{BC})$

$m\angle P = \frac{1}{2}(140 - 40)$

$m\angle P = 50°$