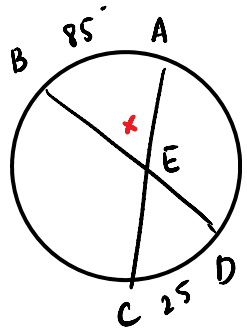
Section 10.5
p. 476: 13, 15, 24, 25, 27, 33

#13



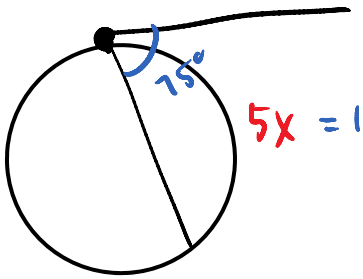
$x = \frac{85 + 25}{2}$

$= 55$

$\measuredangle AED = 180 - 55°$

$= \boxed{125°}$

#15 A circle is divided into 3 arcs in a ratio of 3:4:5. A tangent-chord angle intercepts the largest of 3 arcs. Find the measure of the tangent-chord angle



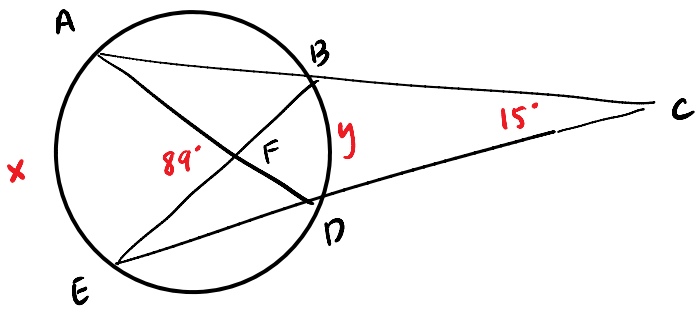
$5x = 150$

$3x + 4x + 5x = 360$

$12x = 360$

$x = 30$

#24



$\frac{x + y}{2} = 89$

$\boxed{x + y = 178}$

$\frac{x - y}{2} = 15$

$\boxed{x - y = 30}$

$x + y = 178$

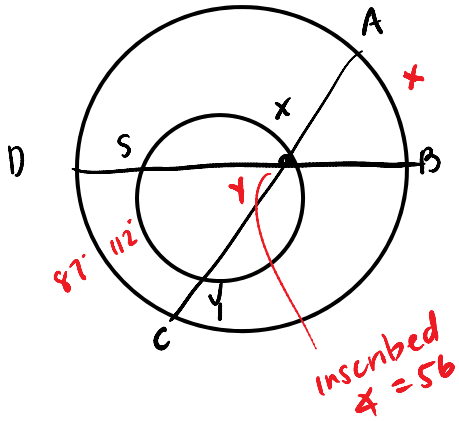
$x - y = 30$

$2x = 208$

$\boxed{x = 104}$

$\boxed{y = 74}$

#25



$\frac{x+87}{2} = 56$

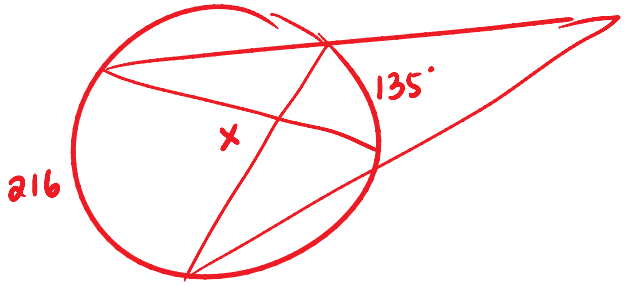
$x + 87 = 112$

$\boxed{x = 25}$

#27 A secant-secant angle intercepts arcs that are $\frac{3}{5}$ and $\frac{3}{8}$ of the circle. If a chord-chord angle and its vertical angle intercept the same arcs, what is the measure of the chord-chord angle?

$\frac{3}{5}(360) = 216$

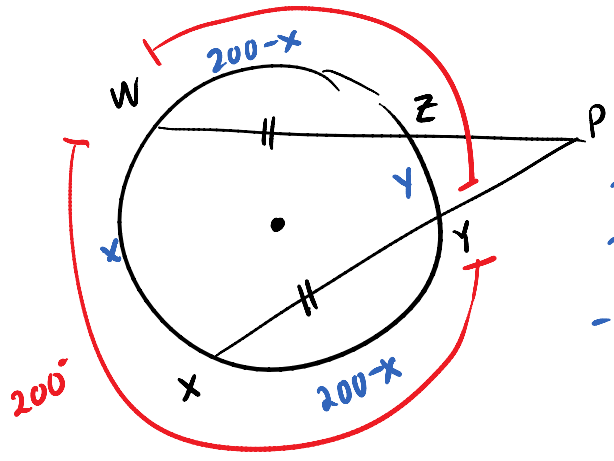
$\frac{3}{8}(360) = 135$



$x = \frac{135 + 216}{2}$

$= \boxed{175.5}$

#33



Find $\angle P$

$x + y + 2(200 - x) = 360$

$x + y + 400 - 2x = 360$

$-x + y = -40$

OR

$x - y = 40$ so $\frac{x-y}{2} = \frac{40}{2} = \boxed{20}$