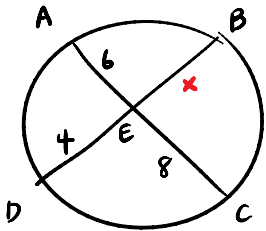


Quiz 10.6-10.8

p. 506: 3, 5, 6, 12, 13, 17, 18, 20, 23, 29

#3

a. Find BD

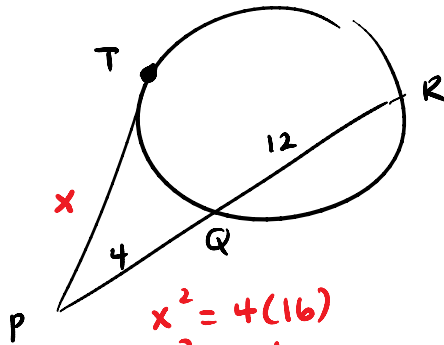


$$4 \cdot x = 6 \cdot 8$$

$$4x = 48$$

$$x = 12$$

b. Find PT

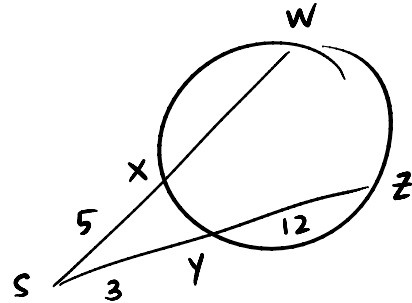


$$x^2 = 4(16)$$

$$x^2 = 64$$

$$x = 8$$

c. Find WX

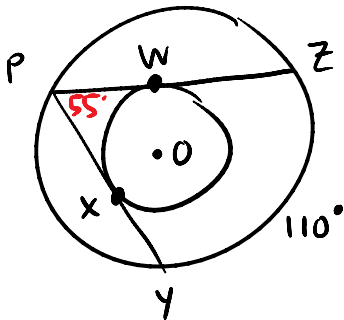


$$3(15) = 5(SW)$$

$$45 = 5SW$$

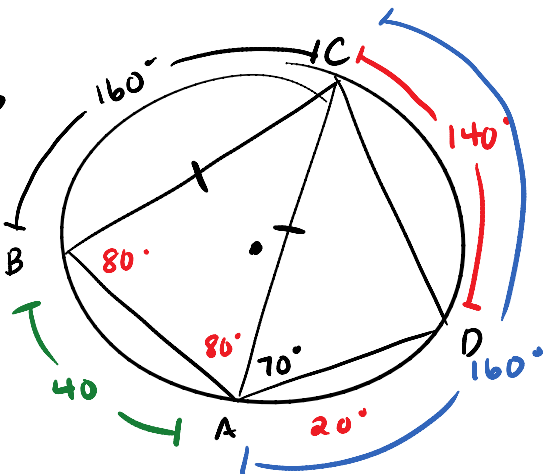
$$9 = SW$$

#5



$$\text{Find } \widehat{WX} = 180 - 55 = 125^\circ$$

#6

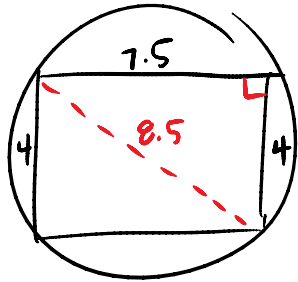


$$\text{Find } \widehat{AB} \text{ and } \widehat{AD}$$

$$40^\circ$$

$$20^\circ$$

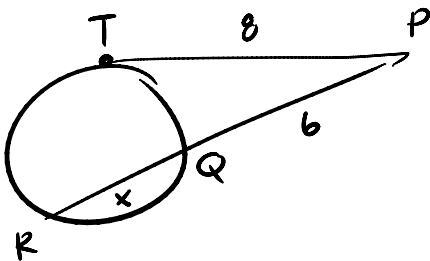
#12 A parallelogram with sides 4 and 7.5 is inscribed in a circle. Find the radius of the circle



$$(8, 15, 17) \div 2$$

$$r = \frac{8.5}{2} = \boxed{4.25}$$

#13 Find RQ



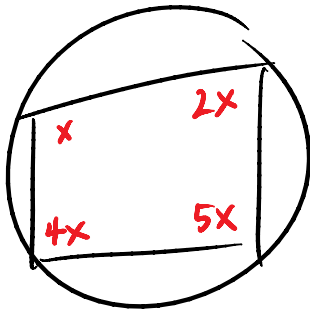
$$8^2 = 6(6+x)$$

$$64 = 36 + 6x$$

$$28 = 6x$$

$$x = \frac{14}{3} \text{ or } 4\frac{2}{3}$$

#17 A quadrilateral is inscribed in a circle. Its vertices divide the circle into 4 arcs in a ratio of 1:2:5:4. Find the angles of the quadrilateral

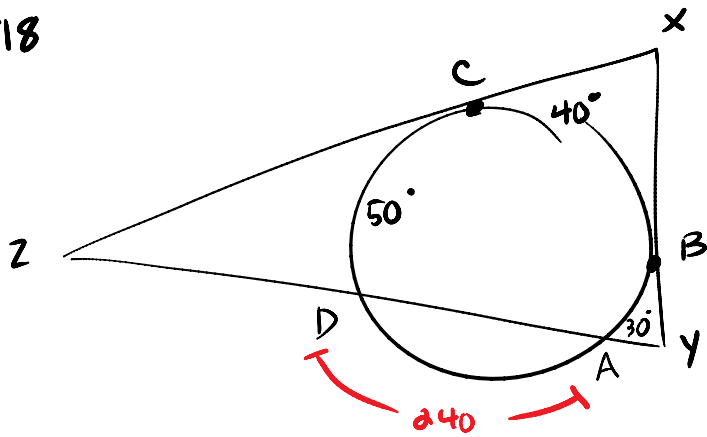


$$x + 2x + 4x + 5x = 360$$

$$12x = 360$$

$$x = \boxed{30}$$

#18



Find: $\angle X$

$$180 - 40 = \boxed{140^\circ}$$

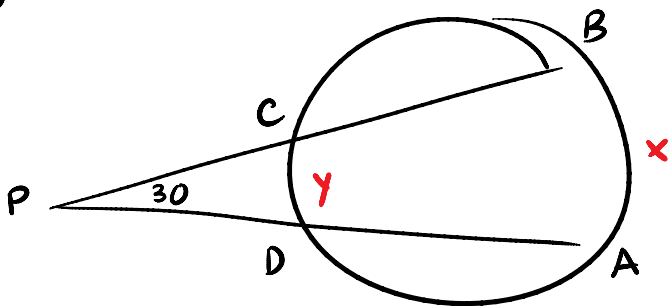
$\angle Y$

$$\frac{90 - 30}{2} = \boxed{30^\circ}$$

$\angle Z$

$$\frac{70 - 50}{2} = \boxed{10^\circ}$$

#20



$$\frac{x - y}{2} = 30$$

$$x + y + 200 = 360$$

$$x - y = 60$$

$$x + y = 160$$

$$x - y = 60$$

$$x + y = 160$$

$$2x = 220$$

\widehat{AB}	$x = 110$
\widehat{CD}	$y = 50$

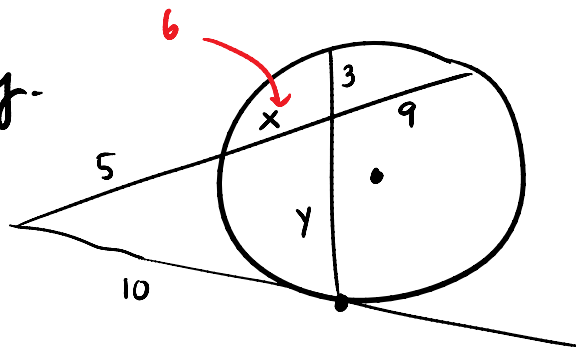
#23 Find x and y .

$$10^2 = 5(14 + x)$$

$$100 = 70 + 5x$$

$$30 = 5x$$

$$\boxed{6 = x}$$



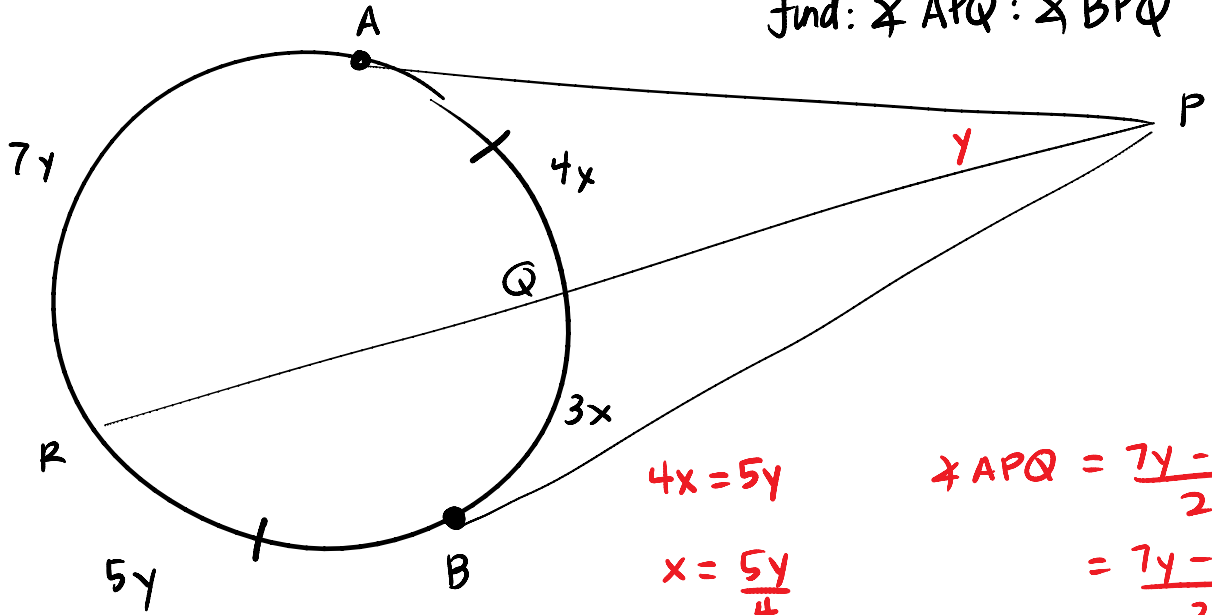
$$6 \cdot 9 = 3y$$

$$54 = 3y$$

$$\boxed{18 = y}$$

#29

Find: $\angle APQ : \angle BPQ$



$$4x = 5y$$

$$x = \frac{5y}{4}$$

$$\angle APQ = \frac{7y - 4x}{2}$$

$$= \frac{7y - 5y}{2}$$

$$= \frac{2y}{2}$$

$$\angle APQ = y$$

$$\angle BPQ = \frac{5y - 3x}{2}$$

$$= \frac{4x - 3x}{2}$$

$$= \frac{x}{2}$$

$$\frac{\angle APQ}{\angle BPQ} = \frac{y}{\frac{x}{2}} = \frac{2y}{x} = \frac{2y}{x} + \frac{5y}{4} = \boxed{\frac{8}{5}}$$