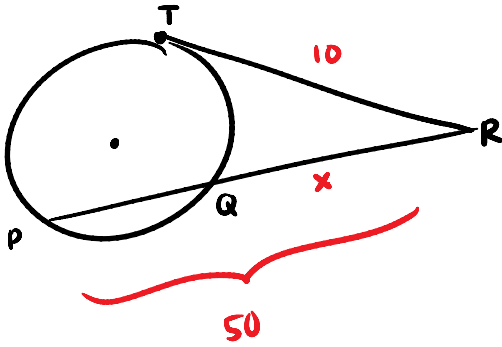


#3



a. If  $TR = 10$ ,  $QR = 5$ , Find  $PR$

$$10^2 = 5PR$$

$$100 = 5PR$$

$$\boxed{20 = PR}$$

b. If  $TR = 10$ ,  $QR = 4$  find  $PQ$

$$10^2 = 4PR$$

$$100 = 4PR$$

$$25 = PR$$

$$\boxed{PQ = 21}$$

c. If  $TR = 10$   $PR = 50$  find  $PQ$

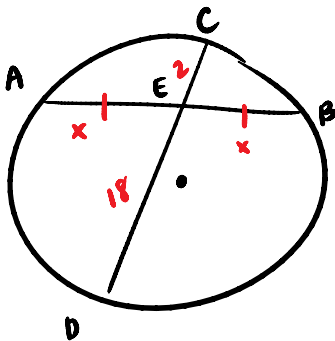
$$10^2 = x \cdot 50$$

$$100 = 50x$$

$$2 = x$$

$$\boxed{PQ = 48}$$

#4



a. If  $AE = 6.4$ ,  $AB = 8.9$  and  $CE = 1.6$   
Find  $ED$

$$6.4 \cdot 2.5 = 1.6 \cdot ED$$

$$16 = 1.6ED$$

$$\boxed{10 = ED}$$

b. If  $AE = 8$   $AB = 14$  and  $ED = 16$   
Find  $DC$

$$8 \cdot 6 = 16EC$$

$$48 = 16EC$$

$$3 = EC$$

$$\boxed{DC = 19}$$

c. If  $CE = 2$   $ED = 18$   $\overline{AE} \cong \overline{EB}$   
Find  $AB$

$$x^2 = 2 \cdot 18$$

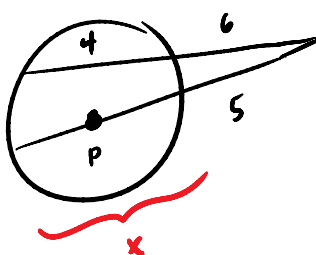
$$x^2 = 36$$

$$x = 6$$

$$\boxed{AB = 12}$$

#5

Find Radius



$$6 \cdot 10 = 5(5+x)$$

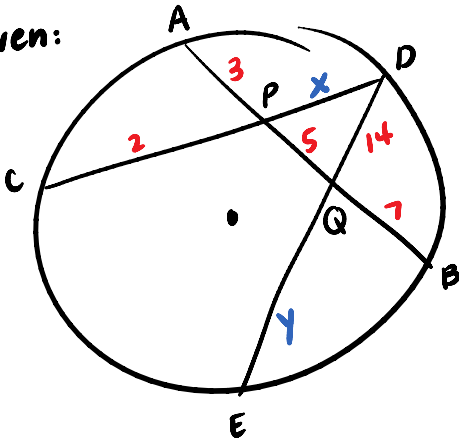
$$60 = 25 + 5x$$

$$35 = 5x$$

$$7 = x$$

$$\boxed{\text{rad} = 3.5}$$

#6 Given:



Find PD and EQ

(18) (4)

$$2 \cdot x = 3 \cdot 12$$

$$2x = 36$$

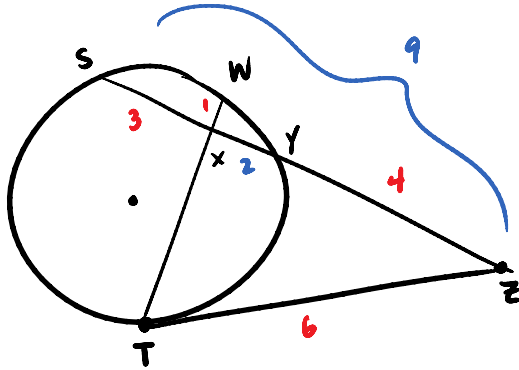
$$x = 18$$

$$14 \cdot y = 8 \cdot 7$$

$$14 \cdot y = 56$$

$$y = 4$$

#7



Find XT (Hint: find SZ)

$$6^2 = 4 \cdot SZ$$

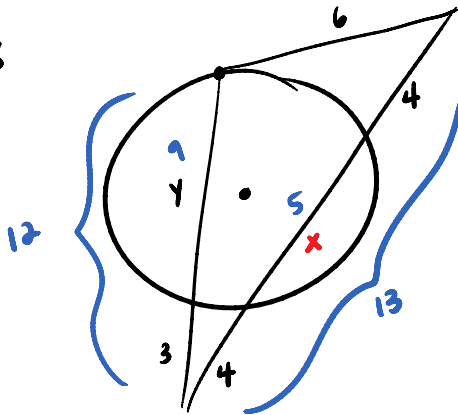
$$36 = 4 \cdot SZ$$

$$9 = SZ$$

$$3 \cdot 2 = 1 \cdot XT$$

$$\boxed{6 = XT}$$

#8



$$6^2 = 4(4+x)$$

$$36 = 16 + 4x$$

$$20 = 4x$$

$$5 = x$$

$$3(3+y) = 4 \cdot 9$$

$$9 + 3y = 36$$

$$3y = 27$$

$$\boxed{y = 9}$$

b. Is the triangle acute, right, obtuse

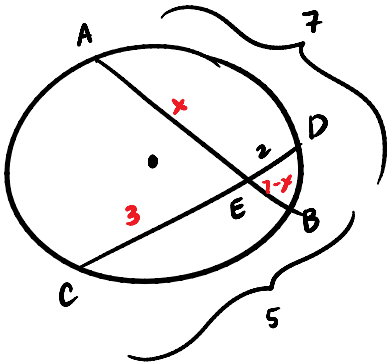
$$13^2 \text{ } \circlearrowleft \text{ } 6^2 + 12^2$$

$$169 \text{ } \circlearrowleft \text{ } 36 + 144$$

$$169 \text{ } \circlearrowright \text{ } 180$$

**ACUTE**

#9



Find AE

$$2 \cdot 3 = x(7-x)$$

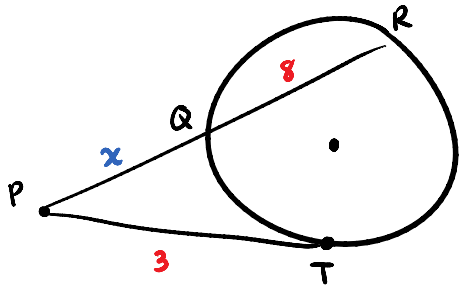
$$6 = 7x - x^2$$

$$x^2 - 7x + 6 = 0$$

$$(x-6)(x-1) = 0$$

$$x = \boxed{6 \text{ or } 1}$$

#10



Find PQ

$$3^2 = x(x+8)$$

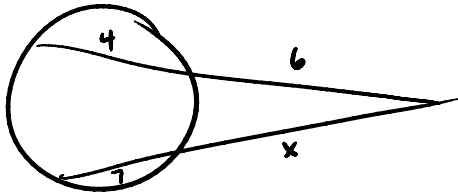
$$9 = x^2 + 8x$$

$$0 = x^2 + 8x - 9$$

$$0 = (x+9)(x-1)$$

$$x = -9, \boxed{1}$$

#11 Solve for x.



$$6(10) = x(x+7)$$

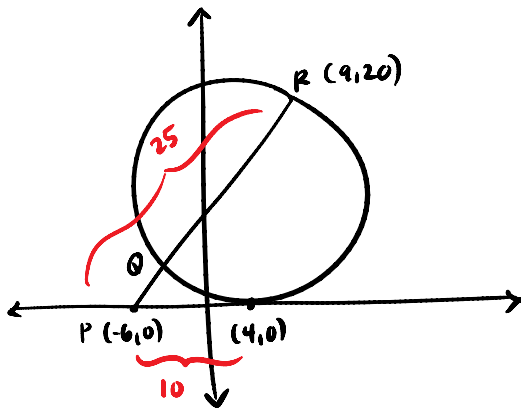
$$60 = x^2 + 7x$$

$$0 = x^2 + 7x - 60$$

$$0 = (x+12)(x-5)$$

$$x = -12, \boxed{5}$$

#12 Find PQ



$$d = \sqrt{(9+6)^2 + (20-0)^2}$$

$$d = \sqrt{15^2 + 20^2}$$

$$d = 25$$

$$10^2 = PQ \cdot 25$$

$$100 = 25 \cdot PQ$$

$$\boxed{4 = PQ}$$