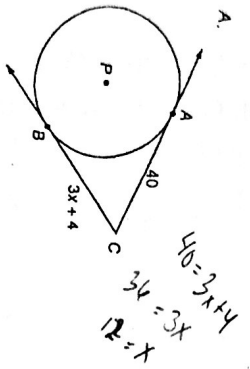


HOMEWORK

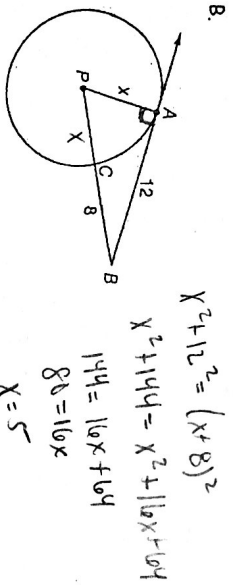
1. For each circle P, find x.



$$40 = 3x + 4$$

$$36 = 3x$$

$$x = 12$$



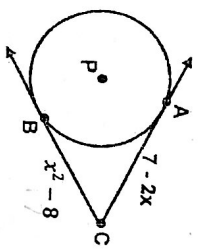
$$x^2 + 12^2 = (x + 8)^2$$

$$x^2 + 144 = x^2 + 16x + 64$$

$$144 = 16x + 64$$

$$80 = 16x$$

$$x = 5$$



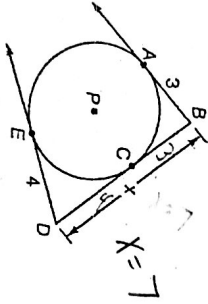
$$7 - 2x = x^2 - 8$$

$$= x^2 + 2x - 15$$

$$(x + 5)(x - 3)$$

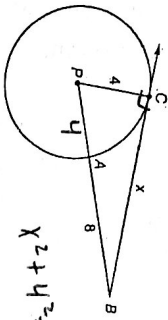
$x = 5$ $x = 3$

C.



$$x = 7$$

D.



$$x^2 + 4^2 = 12^2$$

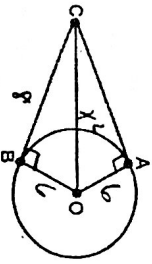
$$x^2 + 16 = 144$$

$$x^2 = 128$$

$$x = \sqrt{128}$$

$$x = 8\sqrt{2}$$

2. If AO=6 and BC=8, then OC = 10



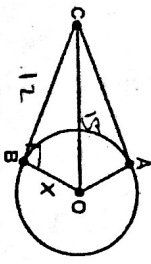
$$8^2 + 6^2 = x^2$$

$$64 + 36 = x^2$$

$$100 = x^2$$

$$10 = x$$

3. If OC = 15 and BC = 12, then the diameter of circle O = 18



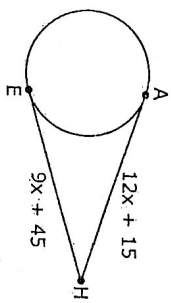
$$x^2 + 12^2 = 15^2$$

$$x^2 + 144 = 225$$

$$x^2 = 81$$

$$x = 9$$

4. Find x.

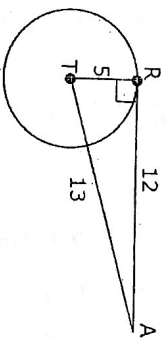


$$12x + 15 = 9x + 45$$

$$3x = 30$$

$$x = 10$$

6. Is \overline{RA} tangent to circle T? Justify your answer.



TA = 13

$$5^2 + 13^2 \stackrel{?}{=} 13^2$$

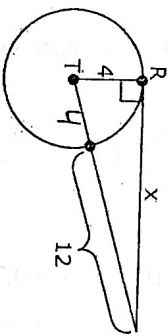
$$25 + 169 = 169$$

$$169 = 169$$

Yes

(22)

7. Solve for x.



$$4^2 + x^2 = 16^2$$

$$16 + x^2 = 256$$

$$x^2 = 240$$

$$x = \sqrt{240} = 4\sqrt{15}$$

5. \overline{HA} and \overline{HE} are tangent to the circle. Find x.

$x = 5$ $x = 3$