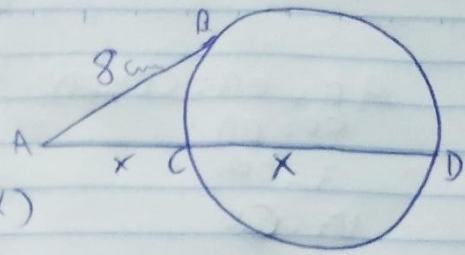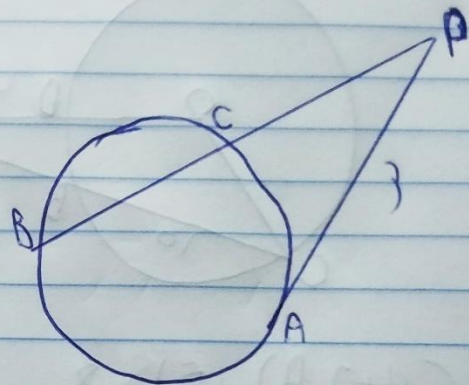1)

$$8^2 = x(x + x)$$
$$64 = x^2 \cdot 2$$
$$32 = x^2$$
$$x = \sqrt{32}$$
$$x = 4\sqrt{2}$$

②

$$PB = 9PC$$

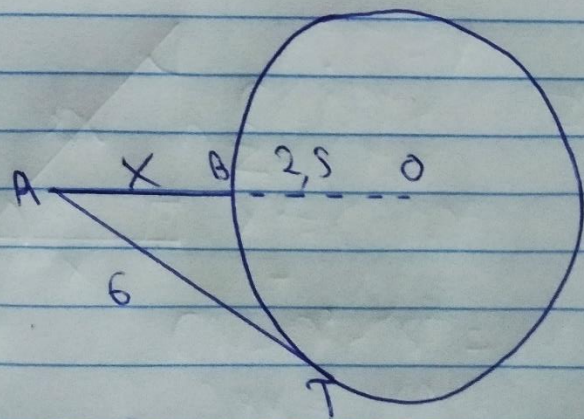3)

$$(x + 2{,}5)^2 = 6^2 + 2{,}5^2$$
$$(x + 2{,}5)^2 = 42{,}25$$
$$x + 2{,}5 = 6{,}5$$
$$x = 6{,}5 - 2{,}5$$
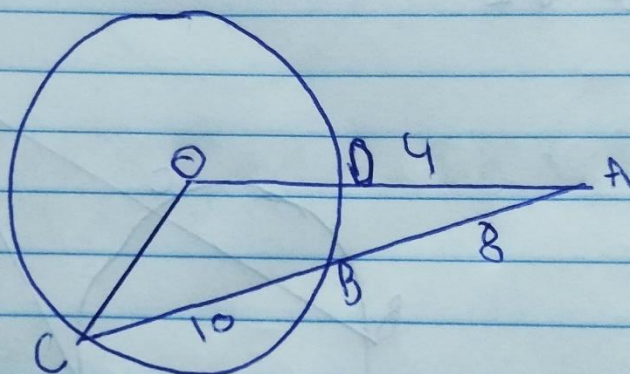$$x = 4$$

4)

$AE \times EB = CE \times ED$

$CE = ED$

$3 = CE^2$

$\sqrt{3} = CE$

$CD = 2CE$

$CD = 2\sqrt{3}$

5)

$(4 + 2R) \cdot 4 = 18 \cdot 8$

$16 + 8R = 144$

$8R = 128$

$R = 16$

$R \cdot 54$

18
16
+ 20
―――
54