

28/9/2020
MONDAY

MATHEMATICS

STD - X
class - 36

Assignment

- 1) In the picture, a line through the centre of a circle meets a chord of the circle:
What are the lengths of the two pieces of the chord?

Ans)

In the figure O is the centre of the circle. Extend OP to both sides to cut the circle at A and B.

$$OB = 7 \text{ cm (given)}$$

$$PB = 7 + 3 = \underline{10 \text{ cm}}, \quad OP = \underline{3 \text{ cm}}$$

$$\therefore PA = 7 - 3 = \underline{4 \text{ cm}}$$

$$PA \times PB = PC \times PD$$

$$4 \times 10 = PC \times PD$$

$$PC \times PD = 40$$

$$PC + PD = 13 \text{ (given)}$$

Two numbers whose sum is 13 and product is 40

$$= \underline{\underline{8, 5}}$$

$$\therefore PC = \underline{\underline{5 \text{ cm}}}$$

$$PD = \underline{\underline{8 \text{ cm}}}$$

