

22/10/2020
THURSDAY

MATHEMATICS

STD-8
class-48

Assignment

1) What number added to 6 gives its own square?

Ans) Let the number = x

$$\therefore x + 6 = x^2$$

$$x^2 = x + 6$$

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

$$a = 1$$

$$b = -1$$

$$c = -6$$

$$\therefore x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

$$= \frac{-(-1) \pm \sqrt{(-1)^2 - 4 \times 1 \times -6}}{2 \times 1} = \frac{1 \pm \sqrt{1+4}}{2} = \frac{1 \pm \sqrt{5}}{2}$$

$$\therefore \text{Number} = \underline{\underline{\frac{1+\sqrt{5}}{2} \text{ or } \frac{1-\sqrt{5}}{2}}}}$$