



Teaching Learning Material

Class - 7th

Subject - Mathematics

Section - All

subject teacher - Bandana Kumari

Solution of An Equation

EXAMPLES:-

Example 1. Solve the following equations:

$$(i) \quad \frac{p}{4} + 7 = 4$$

$$(ii) \quad 3y - \frac{5}{2} = \frac{37}{2}$$

Solution: (i) we have $\frac{p}{4} + 7 = 4$

$$\rightarrow \frac{p}{4} = 4 - 7 \quad [\text{Transposing 7 to RHS}]$$

$$\rightarrow \frac{p}{4} = -3$$

$$\rightarrow \frac{p}{4} \times 4 = -3 \times 4 \quad [\text{Multiply both sides by 4}]$$

$$\rightarrow p = -12$$

$$(ii) \text{ we have } 3y - \frac{5}{2} = \frac{37}{2}$$

Multiply each term by 2, the given equation becomes

$$\rightarrow 6y - 5 = 37$$

$$\rightarrow 6y = 37 + 5 \quad [\text{transposing 5 to RHS}]$$

$$\rightarrow 6y = 42$$

$$\rightarrow \frac{6y}{6} = \frac{42}{6} \quad [\text{dividing both sides by 6}]$$

$$\rightarrow y = 7$$

Example 2. Solve the following equations:

$$(i) \quad 3(x+4)=18$$

$$(ii) \quad 34-5(p-1)=4$$

Solution: (i) we have

$$\Rightarrow 3(x+4) = 18$$

$$\Rightarrow 3x+12=18 \text{ [expanding the bracket on RHS]}$$

$$\Rightarrow 3x=18-12 \text{ [transposing 12 to RHS]}$$

$$\Rightarrow 3x=6$$

$$\Rightarrow x=2$$

(ii) we have

$$\Rightarrow 34-5(p-1) = 4$$

$$\Rightarrow -5(p-1) = 4-34 \text{ [transposing 34 to RHS]}$$

$$\Rightarrow -5(p-1) = -30$$

Divide both sides by -5

$$\Rightarrow \frac{-5(p-1)}{-5} = \frac{-30}{-5}$$

$$\Rightarrow p-1=6$$

$$\Rightarrow p=6+1$$

$$\Rightarrow p=7$$

ANSWER OF PREVIOUS PRACTICE SHEET

1. i) $z=5$ ii) $x=-12$ iii) $x=-0.5$ iv) $x=-4$

2. i) $x=19$ ii) $y=4$ iii) $x=-2$ iv) $x=-2$

v) $y=-11$ vi) $y=0$ vii) $x=18$ viii) $y=-10$

3. i) $m=2$ ii) $p=9$ iii) $n=6$ iv) $p=13$

v) $n=27$

#TAKE_IT_EASY