

## NCERT SOLUTIONS FOR CLASS 8 MATHS LINEAR EQUATION IN ONE VARIABLE

## Solve the following questions.

**Q1.** 
$$x-2=7$$

**Ans:** 
$$x-2=7$$

$$\Rightarrow x-2+2=7+2$$

[Adding 2 both sides]

$$\Rightarrow x = 9$$

**Q2.** 
$$y + 3 = 10$$

**Ans:** 
$$y + 3 = 10$$

$$\Rightarrow y+3-3 = 10-3$$

[Subtracting 3 both sides]

$$\Rightarrow y = 7$$

**Q3**· 
$$6 = z + 2$$

**Ans:** 
$$6 = z + 2$$

$$\Rightarrow$$
 6-2=z+2-2

[Subtracting 2 both sides]

$$\Rightarrow 4 = z \Rightarrow z = 4$$

**Q4.** 
$$\frac{3}{7} + x = \frac{17}{7}$$

**Ans:** 
$$\frac{3}{7} + x = \frac{17}{7}$$

$$\Rightarrow x + \frac{3}{7} - \frac{3}{7} = \frac{17}{7} - \frac{3}{7}$$

[Subtracting  $\frac{3}{7}$  both sides]

$$\Rightarrow x = \frac{17 - 3}{7}$$

$$\Rightarrow x = \frac{14}{7}$$

$$\Rightarrow x = 2$$

**Q5**• 
$$6x = 12$$

**Ans:** 
$$6x = 12$$

$$\Rightarrow \frac{x}{6} = \frac{12}{6}$$

[Dividing both sides by 6]

$$\Rightarrow x = 2$$

**Q6.** 
$$\frac{t}{5} = 10$$

**Ans:** 
$$\frac{t}{5} = 10$$

$$\Rightarrow \frac{t}{5} \times 5 = 10 \times 5$$

[Multiplying both sides by 5]

$$\Rightarrow t = 50$$

**Q7** 
$$\cdot \frac{2x}{3} = 18$$

**Ans:** 
$$\frac{2x}{3} = 18$$

$$\Rightarrow \frac{2x}{3} \times 3 = 18 \times 3$$

[Multiplying both sides by 3]

$$\Rightarrow 2x = 18 \times 3$$

$$\Rightarrow \frac{2x}{2} = \frac{18 \times 3}{2}$$

[Dividing both sides by 2]

$$\Rightarrow x = 27$$

**Q8.** 
$$1.6 = \frac{y}{1.5}$$

**Ans:** 
$$1.6 = \frac{y}{1.5}$$

$$\Rightarrow 1.6 \times 1.5 = \frac{y}{1.5} \times 1.5$$

[Multiplying both sides by 1.5]

$$\Rightarrow 2.40 = y \Rightarrow y = 2.40$$

**Q9**. 
$$7x - 9 = 16$$

**Ans:** 
$$7x - 9 = 16$$

$$\Rightarrow 7x-9+9=16+9$$

[Adding 9 both sides]

$$\Rightarrow 7x = 25 \Rightarrow \frac{7x}{7} = \frac{25}{7}$$

[Dividing both sides by 7]

$$\Rightarrow x = \frac{25}{7}$$

**Q10.** 
$$14y - 8 = 13$$

**Ans:** 
$$14y - 8 = 13$$

$$\Rightarrow 14y - 8 + 8 = 13 + 8$$

[Adding 8 both sides]

$$\Rightarrow 14y = 21 \Rightarrow \frac{14y}{14} = \frac{21}{14}$$

[Dividing both sides by 14]

$$\Rightarrow y = \frac{3}{2}$$

**Q11.** 
$$17 + 6p = 9$$

**Ans:** 
$$17 + 6p = 9$$

$$\Rightarrow 17 + 6p - 17 = 9 - 17$$

[Subtracting 17 from both sides]

$$\Rightarrow 6p = -8 \Rightarrow \frac{6p}{6} = \frac{-8}{6}$$

[Dividing both sides by 6]

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

**Q12.** 
$$\frac{x}{3} + 1 = \frac{7}{15}$$

**Ans:** 
$$\frac{x}{3} + 1 = \frac{7}{15}$$

$$\Rightarrow \frac{x}{3} + 1 - 1 = \frac{7}{15} - 1$$

[Subtracting 1 from both sides]

$$\Rightarrow \frac{x}{3} = \frac{7-15}{15} \Rightarrow \frac{x}{3} = \frac{-8}{15}$$

$$\Rightarrow \frac{x}{3} \times 3 = \frac{-8}{15} \times 3$$

[Multiplying both sides by 3]

$$\Rightarrow x = \frac{-8}{5}$$

\*\*\*\*\*\*\* END \*\*\*\*\*\*