



SpeedLabs

MATHS

CBSE 8th

TEEVRA EDUTECH PVT. LTD.

Linear Equation

Exercise-2.1

Q.1 Solve the following questions, $x - 2 = 7$.

Sol: $x - 2 = 7$

$$\Rightarrow x = 7 + 2 = 9 \text{ (Transposing 2 to R.H.S.)}$$

Hence, $x = 9$ is the required solution.

Q.2 Solve the following questions, $y + 3 = 10$

Sol: $y + 3 = 10$

$$\Rightarrow y + 3 - 3 = 10 - 3 \quad [\text{subtracting 3 both sides}]$$

$$\Rightarrow y = 7$$

Q.3 Solve the following questions, $6 = z + 2$

Sol: $6 = z + 2$

$$\Rightarrow 6 - 2 = z + 2 - 2 \quad [\text{Subtracting 2 both sides}]$$

$$\Rightarrow 4 = z$$

$$\Rightarrow z = 4$$

Q.4 Solve the following questions, $\frac{3}{7} + x = \frac{17}{7}$

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

$$\Rightarrow x + \frac{3}{7} - \frac{3}{7} = \frac{17}{7} - \frac{3}{7} \quad [\text{Subtracting } \frac{3}{7} \text{ both sides}]$$

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

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

$$\Rightarrow x = 2$$

Q.5 Solve the following questions, $6x = 12$

Sol: $6x = 12$

$$\Rightarrow \frac{x}{6} = \frac{12}{6} \text{ [Dividing both sides by 6]}$$

$$\Rightarrow x = 2$$

Q.6 Solve the following questions, $\frac{t}{5} = 10$

Sol: $\Rightarrow \frac{t}{5} = 10$

$$\Rightarrow \frac{t}{5} \times 5 = 10 \times 5 \text{ [Multiplying both sides by 5]}$$

$$\Rightarrow t = 50$$

Q.7 Solve the following questions, $\frac{2x}{3} = 18$

Sol: $\frac{2x}{3} = 18$

$$\Rightarrow \frac{2x}{3} \times 3 = 18 \times 3 \text{ [Multiplying both sides by 3]}$$

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

$$\Rightarrow \frac{2x}{2} = \frac{18 \times 3}{2} \text{ [Dividing both sides by 2]}$$

$$\Rightarrow x = 27$$

Q.8 Solve the following questions, $1.6 = \frac{y}{1.5}$

Sol: $1.6 = \frac{y}{1.5}$

$$\Rightarrow 1.6 \times 1.5 = \frac{y}{1.5} \times 1.5 \text{ [Multiplying both sides by 1.5]}$$

$$\Rightarrow 2.40 = y$$

$$\Rightarrow y = 2.40$$

Q.9 Solve the following questions, $7x - 9 = 16$

Sol: $7x - 9 = 16$

$$\Rightarrow 7x - 9 + 9 = 16 + 9 \text{ [Adding 9 both sides]}$$

$$\Rightarrow 7x = 25$$

$$\Rightarrow \frac{7x}{7} = \frac{25}{7} \text{ [Dividing both sides by 7]}$$

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

Q.10 Solve the following questions, $14y - 8 = 13$

Sol: $14y - 8 = 13$

$$\Rightarrow 14y - 8 + 8 = 13 + 8 \text{ [Adding 8 both sides]}$$

$$\Rightarrow 14y = 21$$

$$\Rightarrow \frac{14y}{14} = \frac{21}{14} \text{ [Dividing both sides by 14]}$$

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

Q.11 Solve the following questions. $17 + 6p = 9$

Sol: $17 + 6p = 9$

$$\Rightarrow 17 + 6p - 17 = 9 - 17 \text{ [subtracting 17 from both sides]}$$

$$\Rightarrow 6p = -8$$

$$\Rightarrow \frac{6p}{6} = \frac{-8}{6} \text{ [Dividing both sides by 6]}$$

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

Q.12 Solve the following questions, $\frac{x}{3} + 1 = \frac{7}{15}$

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

$$\Rightarrow \frac{x}{3} + 1 - 1 = \frac{7}{15} - 1 \text{ [Subtracting 1 from both sides]}$$

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

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

$$\Rightarrow \frac{x}{3} \times 3 = \frac{-8}{15} \times 3 \text{ [Multiplying both sides by 3]}$$

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