CBSE Class –VIII Mathematics

NCERT Solutions

CHAPTER - 2

Linear Equations in One Variable (Ex. 2.1)

Solve the following questions.

1. $x-2=7$

Ans. $x-2=7$

$\Rightarrow x-2+2 = 7+2$ [Adding 2 to both sides]

$\Rightarrow x = 9$

2. $y+3=10$

Ans. $y+3=10$

$\Rightarrow y+3-3 = 10-3$ [Subtracting 3 from both sides]

$\Rightarrow y = 7$

3. $6=z+2$

Ans. $6=z+2$

$\Rightarrow 6-2=z+2-2$ [Subtracting 2 from both sides]

$\Rightarrow 4=z$

$\Rightarrow z=4$

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

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

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

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

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

$\Rightarrow x=2$

5. $6x=12$

Ans. $6x=12$

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

$\Rightarrow x=2$

6. $\frac{t}{5}=10$

Ans. $\frac{t}{5}=10$

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

$\Rightarrow t = 50$

7. $\frac{2x}{3}=18$

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]

$\Rightarrow x=27$

8. $1.6=\frac{y}{1.5}$

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]

$\Rightarrow 2.40=y$

$\Rightarrow y=2.40$

9. $7x-9=16$

Ans. $7x-9=16$

$\Rightarrow 7x-9+9=16+9$ [Adding 9 to both sides]

$\Rightarrow 7x=25$

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

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

10. $14y - 8 = 13$

Ans. $14y - 8 = 13$

$\Rightarrow 14y - 8 + 8 = 13 + 8$ [Adding 8 to both sides]

$\Rightarrow 14y = 21$

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

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

11. $17 + 6p = 9$

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]

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

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

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]

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