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

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 **********