Exercise 2.1 : Solutions of Questions on Page Number : 23

Q1 :

Solve: $x - 2 = 7$

Answer :

$x - 2 = 7$

Transposing 2 to R.H.S, we obtain

$x = 7 + 2 = 9$

Q2 :

Solve: $y + 3 = 10$

Answer :

$y + 3 = 10$

Transposing 3 to R.H.S, we obtain

$y = 10 - 3 = 7$

Q3 :

Solve: $6 = z + 2$

Answer :

$6 = z + 2$

Transposing 2 to L.H.S, we obtain

$6 - 2 = z$

$z = 4$

Q4 :

Solve: $\dfrac{3}{7} + x = \dfrac{17}{7}$

Answer :

$$\dfrac{3}{7} + x = \dfrac{17}{7}$$

Transposing $\dfrac{3}{7}$ to R.H.S, we obtain

$$x = \dfrac{17}{7} - \dfrac{3}{7} = \dfrac{14}{7} = 2$$

Q5 :

Solve: $6x = 12$

Answer :

$6x = 12$

Dividing both sides by 6, we obtain

$$\dfrac{6x}{6} = \dfrac{12}{6}$$

$x = 2$

Q6 :

Solve: $\dfrac{t}{5} = 10$

Answer :

$$\dfrac{t}{5} = 10$$

Multiplying both sides by 5, we obtain

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

$$t = 50$$

Q7 :

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

Answer :

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

Multiplying both sides by $\frac{3}{2}$, we obtain

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

$$x = 27$$

Q8 :

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

Answer :

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

Multiplying both sides by 1.5, we obtain

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

$$2.4 = y$$

Q9 :

Solve: $7x - 9 = 16$

Answer :

7x - 9 = 16

Transposing 9 to R.H.S, we obtain

7x = 16 + 9

7x = 25

Dividing both sides by 7, we obtain

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

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

Q10 :

Solve: $14y - 8 = 13$

Answer :

14y - 8 = 13

Transposing 8 to R.H.S, we obtain

14y = 13 + 8

14y = 21

Dividing both sides by 14, we obtain

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

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

Q11 :

Solve: $17 + 6p = 9$

Answer :

$17 + 6p = 9$

Transposing 17 to R.H.S, we obtain

$6p = 9 - 17$

$6p = -8$

Dividing both sides by 6, we obtain

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

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

Q12 :

Solve: $\dfrac{x}{3} + 1 = \dfrac{7}{15}$

Answer :

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

Transposing 1 to R.H.S, we obtain

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

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

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

Multiplying both sides by 3, we obtain

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

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