Linear equations in one variable Ex 8.2 Q1

Answer :

$x - 3 = 5$

Adding 3 to both sides, we get

$\Rightarrow x - 3 + 3 = 5 + 3$

$\Rightarrow x = 8$

Verification:

Substituting x= 8 in LHS, we get

LHS = $x - 3$ and RHS = 5

LHS = $8 - 3 = 5$ and RHS = 5

LHS = RHS

Hence, verified.

Linear equations in one variable Ex 8.2 Q2

Answer :

$x + 9 = 13$

Subtracting 9 from both sides, we get

$\Rightarrow x + 9 - 9 = 13 - 9$

$\Rightarrow x = 4$

Verification:

Substituting x = 4 on LHS, we get

LHS = 4 + 9 = 13 = RHS

LHS = RHS

Hence, verified.

Linear equations in one variable Ex 8.2 Q3

Answer :

$x - \frac{3}{5} = \frac{7}{5}$

Adding $\frac{3}{5}$ to both sides, we get

$\Rightarrow x - \frac{3}{5} + \frac{3}{5} = \frac{7}{5} + \frac{3}{5}$

$\Rightarrow x = \frac{7+3}{5}$

$\Rightarrow x = \frac{10}{5}$

$\Rightarrow x = 2$

Verification:

Substituting $x = 2$ in LHS, we get

LHS $= 2 - \frac{3}{5} = \frac{10-3}{5} = \frac{7}{5}$, and RHS $= \frac{7}{5}$

LHS = RHS

Hence, verified.

Linear equations in one variable Ex 8.2 Q4

Answer :

$3x = 0$

Dividing both sides by 3, we get

$\Rightarrow \frac{3x}{3} = \frac{0}{3}$

$\Rightarrow x = 0$

Verification:

Substituting $x = 0$ in LHS $= 3x$, we get

LHS $= 3 \times 0 = 0$ and RHS $= 0$

LHS = RHS

Hence, verified.

Linear equations in one variable Ex 8.2 Q5

Answer :

$x - \frac{1}{3} = \frac{2}{3}$

$\Rightarrow$ Adding $\frac{1}{3}$ to both sides, we get

$\Rightarrow x - \frac{1}{3} + \frac{1}{3} = \frac{2}{3} + \frac{1}{3}$

$\Rightarrow x = \frac{2+1}{3}$

$\Rightarrow x = \frac{3}{3}$

$\Rightarrow x = 1$

Verification:

Substituting x= 1 in LHS, we get

LHS $= 1 - \frac{1}{3} = \frac{3-1}{3} = \frac{2}{3}$, and RHS $= \frac{2}{3}$

LHS = RHS

Hence, verified.

Linear equations in one variable Ex 8.2 Q6

Answer :

$x - \frac{1}{3} = \frac{2}{3}$

$\Rightarrow$ Adding $\frac{1}{3}$ to both sides, we get

$\Rightarrow x - \frac{1}{3} + \frac{1}{3} = \frac{2}{3} + \frac{1}{3}$

$\Rightarrow x = \frac{2+1}{3}$

$\Rightarrow x = \frac{3}{3}$

$\Rightarrow x = 1$

Verification:

Substituting x= 1 in LHS, we get

LHS $= 1 - \frac{1}{3} = \frac{3-1}{3} = \frac{2}{3}$, and RHS $= \frac{2}{3}$

LHS = RHS

Hence, verified.

********** END **********