Linear Equations in One Variable Ex 9.4 Q1

Answer :

Let the number be x.

According to the question,

$\frac{4}{5}x - \frac{3}{4}x = 4$

or $\frac{16x-15x}{20} = 4$

or $x = 80$ [After cross multiplication]

Thus, the required number is 80.

Linear Equations in One Variable Ex 9.4 Q2

Answer :

Let the numbers be x and $x+1$.

According to the question,

$(x+1)^2 - x^2 = 31$

or $x^2 + 2x + 1 - x^2 = 31$

or $2x = 31 - 1$

or $x = \frac{30}{2}$

or $x = 15$

Thus, the numbers are 15 and 16.

Linear Equations in One Variable Ex 9.4 Q3

Answer :

Let the number be x.
According to the question,

$2x = \frac{1}{2}x + 45$

or $2x - \frac{1}{2}x = 45$

or $\frac{4x-x}{2} = 45$

or $3x = 90$ [After cross multiplication]

or $x = \frac{90}{3}$

or $x = 30$

Thus, the number is 30.

Linear Equations in One Variable Ex 9.4 Q4

Answer :

Let the number be x.
According to the question,

$5x - 5 = 2x + 4$

or $5x - 2x = 4 + 5$

or $3x = 9$

or $x = \frac{9}{3}$

or $x = 3$

Thus, the number is 3.

Linear Equations in One Variable Ex 9.4 Q5

Answer :

Let the number be x.

According to the question,

$$\frac{x}{5} + 5 = \frac{x}{4} - 5$$

$$\text{or } \frac{x}{5} - \frac{x}{4} = -5 - 5$$

$$\text{or } \frac{4x-5x}{20} = -10$$

$$\text{or } -x = -200 \left[\text{After cross multiplication}\right]$$

$$\text{or } x = 200$$

Thus, the number is 200.

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