

Linear Equations in One Variable Ex 9.4 Q1

Answer:

Let the number be x.

According to the question,

$$\frac{4}{5} \mathbf{x} - \frac{3}{4} \mathbf{x} = 4$$
or
$$\frac{16\mathbf{x} - 15\mathbf{x}}{20} = 4$$

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,

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

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

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,

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

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

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

or
$$-x = -200$$
 After cross multiplication

or
$$x = 200$$

Thus, the number is 200.

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