

Linear Equations in One Variable

A. Choose the Correct Answer:

1. The solution of $2x + 3 = 7$ is:

- a) 1
- b) 2
- c) 3
- d) 4

2. Which of the following is a linear equation in one variable?

- a) $x^2 + 2x = 5$
- b) $2x + 3 = 7$
- c) $x^3 - 5x = 10$
- d) $xy + 5 = 7$

3. Solve: $5x - 4 = 11$

- a) 2
- b) 3
- c) 4
- d) 5

4. The solution of $3x + 7 = 2x + 12$ is:

- a) 2
- b) 5
- c) 7
- d) 12

5. The solution of the equation $\frac{x}{2} = 3$ is:

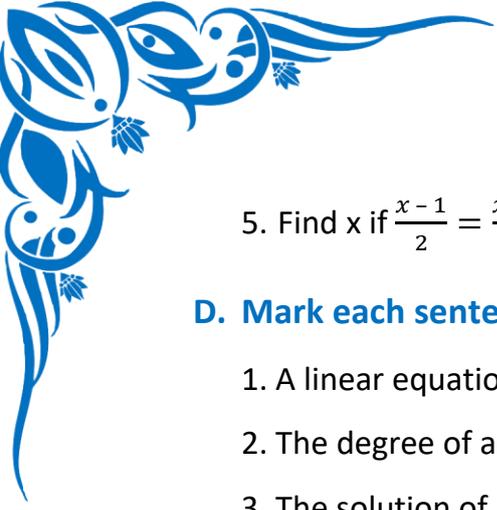
- a) 6
- b) $\frac{3}{2}$
- c) $\frac{2}{3}$
- d) 3

B. Write the Missing Terms to Complete the Sentences:

1. A linear equation in one variable has degree _____
2. The solution of $4x - 5 = 11$ is $x =$ _____
3. An equation which can be written in the form $ax + b = 0$ is called a _____
4. To solve a linear equation, we perform the _____ operation on both sides
5. The solution of $\frac{x}{3} + 2 = 5$ is $x =$ _____

C. Figure out the answers to these questions:

1. Solve $3x + 5 = 11$
2. Solve $2(x - 3) = 4$
3. Find the value of x in $5x - 2 = 3x + 6$
4. Solve $7(x + 2) = 5(x - 4)$



5. Find x if $\frac{x-1}{2} = \frac{x+3}{4}$

D. Mark each sentence with a True (✓) or False (X):

1. A linear equation in one variable can have more than one solution. _____
2. The degree of a linear equation is 1. _____
3. The solution of $2x - 5 = 9$ is $x = 7$. _____
4. In solving linear equations, we balance the equation by performing same operations on both sides. _____
5. The solution of $4x + 1 = 5x - 3$ is $x = 4$. _____

E. Challenge yourself with these questions:

1. Solve $4x + 7 = 19$
2. Solve $2(x - 5) = 3(x - 2)$
3. Solve $\frac{5x}{2} + 3 = 7$
4. Find x if $3(x + 1) = 2(x + 4)$
5. Solve $\frac{2x - 3}{5} = \frac{x + 2}{3}$