

## 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:

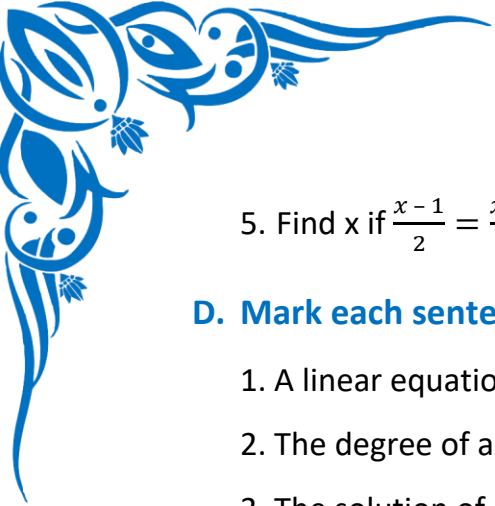
- a) 6
- b)  $\frac{3}{2}$
- c)  $\frac{2}{3}$
- d) 3

### 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  $\frac{2x-3}{5} = \frac{x+2}{3}$