

## Linear Equation in one variable

### Worksheet 2

Date : 26/04/24

#### I. Choose the correct option:

1. If  $8x - 3 = 25 + 17x$ , then the solution  $x$  is –

(a) Integer number (b) Rational number (c) Whole number (d) Fraction

2. If  $at + b = ct + d$  is a linear equation in one variable then which of the following is true?

(a)  $a \neq 0$ ,  $c \neq 0$  (b)  $a - c \neq 0$  (c)  $b \neq 0$ ,  $d \neq 0$  (d)  $b - d \neq 0$

3. Identify which of the following expressions are Linear equation in one variable:

(a)  $107x + 6 = y$ , (b)  $6 + t = 7t^2$ , (c)  $4t + 2024t = 1600$  (d)  $6t = 6/t$ ,

(e)  $204x = -25 + 4x$ , (f)  $7 = 91/y$

4. Solve for  $x$ :

a.  $5x + 3.5 = 1.5x - 14$

b.  $5x - 2(2x - 7) = (3x - 1) + 3.5$

c.  $\frac{2y-3}{4} - \frac{3y-5}{2} = y + \frac{3}{4}$

5. The value of  $x$  for which the expressions  $3x - 4 + 7.5x$  and  $2x + 38.5$  be equal, is \_\_\_\_\_.

6. If  $\frac{5x}{3} - 4 = \frac{2x}{5}$ , then the value of  $2x - 7$  is \_\_\_\_\_.

7. Match the following :

| Column A                                                   | Column B               |
|------------------------------------------------------------|------------------------|
| a. $\frac{x}{3} + \frac{1}{4} = \frac{x}{2} - \frac{1}{5}$ | p. $x = -4$            |
| b. $\frac{x-2}{x+1} = \frac{1}{2}$                         | q. $x = -39$           |
| c. $\frac{x+1}{2x-1} = \frac{1}{3}$                        | r. $x = 5$             |
| d. $\frac{x-1}{8} = \frac{2x+3}{15}$                       | s. $x = \frac{27}{10}$ |