

## Daily Quiz

Solve the following .

$$3(x-1) = 3(-6+3x) + 3$$

$$3x - 3 = -18 + 9x + 3$$

$$\begin{array}{r} 3x - 3 = -18 + 9x \\ +3 \quad +3 \\ \hline \end{array}$$

$$\begin{array}{r} 3x = -12 + 9x \\ -9x \quad -9x \\ \hline \end{array}$$

$$\begin{array}{r} -6x = -12 \\ -6 \quad -6 \\ \hline \end{array}$$

$$x = 2$$

## Daily Quiz

Solve the following .

$$3(x-1) = 5x+3$$

## Clearing equations of fractions

Objective : We will be able to use the lowest common denominator to clear fraction from equation then solve.

1 Example Solve each equation.

$$\frac{5}{2}x - \frac{9}{4}x = \frac{13}{2} - \frac{3}{2}x$$

*(Note: In the original image, the denominators 2, 4, 2, and 2 are circled in blue, and the LCD 4 is circled in red.)*

LCD = 4

$$2(-5x) - 9x(1) = 2(13) - 2(3x)$$

$$-10x - 9x = 26 - 6x$$

$$\begin{array}{r} -19x = 26 - 6x \\ +6x \quad \quad +6x \\ \hline \end{array}$$

$$\begin{array}{r} -13x = 26 \\ -13 \quad \quad -13 \\ \hline \end{array}$$

$$x = -2$$

2 Example Solve each equation.

LCD = 4

$$-\frac{4 \cdot 5}{2}n + \frac{4 \cdot 11}{4} = \frac{4}{1} - \frac{3n \cdot 4}{1}$$

$$-\frac{20n}{2} + \frac{44}{4} = \frac{4}{1} - \frac{12n}{1}$$

$$\begin{array}{r} -10n + 11 = 4 - 12n \\ +12n \quad \quad \quad +12n \end{array}$$

$$\begin{array}{r} 2n + 11 = 4 \\ -11 \quad -11 \end{array}$$

$$\frac{2n}{2} = \frac{-7}{2}$$

$$n = -\frac{7}{2}$$

3 Example Solve each equation.

LCD = 12

$$-\frac{1 \cdot 12}{2}x + \frac{1 \cdot 12}{4} = -\frac{1 \cdot 12}{3}x + \frac{3 \cdot 12}{2}$$

$$-\frac{12x}{2} + \frac{12}{4} = \frac{12x}{3} + \frac{36}{2}$$

$$\begin{array}{r} -6x + 3 = 4x + 18 \\ -3 \quad \quad \quad -3 \end{array}$$

$$\begin{array}{r} -6x = 4x + 15 \\ -4x \quad -4x \end{array}$$

$$\begin{array}{r} -10x = 15 \\ -10 \quad -10 \end{array}$$

$$x = -\frac{3}{2}$$