

Multi-Step Equations with CLEARING FRACTIONS -- (NOTES)

Step 1: Find the Least Common Denominator (LCD) or the smallest number that both **denominators** can divide into

Step 2: Multiply each term by the LCD

Examples: LCD (5 and 10) = 10

LCD (4 and 3) = 12

LCD (2, 4, and 5) = _____

LCD (2, 5, and 10) = _____

Ex 1: $\frac{5}{6}x - 2 = 3$

The only denominator is?

Ex 2: $\frac{1}{2} + x = \frac{3}{5}$

The LCD of 2 and 5 is?

Ex 3: $\frac{7}{8} + \frac{x}{2} = \frac{1}{4} - 2x$

What should you multiply each term by?

Ex 4: (Hint – Distribute before clearing)

$$9 - 6\left(\frac{x}{3} + 1\right) = x$$

What should you multiply each term by?

Multi-Step Equations with CLEARING FRACTIONS -- (HOMEWORK)

1) $\frac{3}{4}x + \frac{1}{2} = -\frac{5}{2}$ **LCD:** _____

$x = -4$

4) $x + \frac{2}{3} = \frac{1}{4}x - 1$ **LCD:** _____

$x = -20/9$

2) $\frac{1}{4}m - 3 = \frac{1}{2}m + 12$ **LCD:** _____

$m = -60$

5) $\frac{1}{2} + \frac{2}{5}n - 1 = \frac{1}{5}n + n$ **LCD:** _____

$n = -5/8$

3) $\frac{1}{4}n + n = -3 + \frac{1}{2}n$ **LCD:** _____

$n = -4$

6) $\frac{1}{5}m + \frac{2}{3} - 2 = m - \frac{2}{5}$ **LCD:** _____

$m = -7/6$