

Accuplacer Study Modules

TOPIC: Solving Linear Equations with Fractions

Instructions: Solv each equation.

1. $3x - \frac{2x}{5} = 26$

$5(3x - \frac{2x}{5} = 26)$ (Get rid of Fractions: multiply through by least common denominator)

$15x - 2x = 130$

$\frac{13x}{13} = \frac{130}{13}$

$x = 10$

(Combine like terms)
(Get rid of multiplication)

2. $\frac{x}{3} = \frac{x+5}{4}$ (Cross Multiply)

$4x = 3(x+5)$ (distribute 3)

$4x = 3x + 15$ (Get all variables on one side)

$-3x - 3x -$

$x = 15$

3. $\frac{2x-4}{5} = \frac{3x+3}{3}$ (cross multiply)

$5(3x+3) = 3(2x-4)$ (Distribute 5 and 3)

$15x + 15 = 6x - 12$ (Get all variables on one side)

$-6x - 6x$

$9x + 15 = -12$ (Get rid of addition)

$-15 - 15$

$\frac{9x}{9} = \frac{-27}{9}$ (Get rid of multiplication)

$x = -3$

4. $\frac{2x}{3} + \frac{4x}{2} = 16$ (Get rid of fractions: multiply through by LCD)

$6(\frac{2x}{3} + \frac{4x}{2}) = 16 \cdot 6$

$\frac{12x}{3} + \frac{24x}{2} = 96$ (Simplify fractions)

$4x + 12x = 96$ (Combine like terms)

$\frac{16x}{16} = \frac{96}{16}$ (Get rid of multiplication)

$x = 6$