

M117 SECTION 7.5 SOLVING EQUATIONS CONTAINING RATIONAL EXPRESSIONS

- How to solve:
1. Be sure that the problem is an **EQUATION** (contains an =).
 2. Find the LCD of **ALL THE FRACTIONS** (check both sides of the equation).
 3. Using distributive property, multiply every term (even if it is not a fraction) by $\frac{\text{LCD}}{1}$
 4. Simplify each individual term (the denominators should all become 1)
 5. Simplify each side of the equation. **WATCH FOR SUBTRACTIONS!**
 6. Solve for the variable.
 7. Check to make sure that your solution works. Is it an extraneous solution?

Examples:

$$\frac{x}{2} - \frac{x}{5} = 4$$

$$\frac{2}{x+5} = \frac{4}{x-1}$$

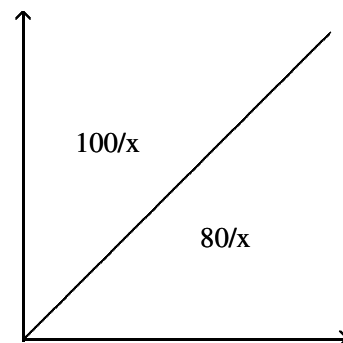
$$\frac{x-4}{2} - \frac{x-3}{9} = \frac{5}{18}$$

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

$$\frac{x^2}{x+2} - 3 = \frac{x+6}{x+2} - 4$$

$$\frac{y}{y+4} + \frac{8y+28}{y^2+7y+12} = \frac{4}{y+3}$$

Recall that two angles are complementary if the sum of their measures is 90° . Find the measures of the following complementary angles.



Solve the equation for the indicated variable:

$$i = \frac{A}{t + b} \quad \text{for } t$$

$$\frac{1}{a} + \frac{1}{b} = \frac{1}{x} \quad \text{for } x$$