

## Solving Rational Equations

### Attention!

Always verify your answers by plugging them into the original equations. If the solution causes

\_\_\_\_\_, it is \_\_\_\_\_. Delete it!

Examples: Solve the rational equation.

$$1. \frac{1}{x+4} = 2$$

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

$$3. \frac{2}{x+5} = 4$$

$$4. \frac{1}{x-7} = 2$$

$$5. \frac{1}{x-5} + \frac{x}{x-3} = \frac{2}{x^2-8x+15}$$

$$6. \frac{1}{x+2} + \frac{1}{x-2} = \frac{4}{(x+2)(x-2)}$$

$$7. \frac{4}{x-1} + \frac{2}{x-3} = 2$$

$$8. \frac{1}{x+7} + \frac{x}{x-2} = \frac{18}{x^2+5x-14}$$

### Class Work: Solve the Rational Equations

$$1. \frac{1}{x+5} + \frac{x}{x+7} = \frac{-1}{x^2+12x+35}$$

$$2. \frac{5}{x+6} + \frac{4}{x+3} = 3$$

$$3. \frac{1}{x-2} + \frac{x}{x-6} = \frac{6}{x^2-8x+12}$$

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