

Algebra Review Sheet

Simplify each expression.

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

$$2. \frac{x^2+2x-2}{x^2+3x-10} + \frac{5x+12}{(x+5)(x-2)}$$

$$3. \frac{x+4}{2x} + \frac{8}{7x}$$

$$4. \frac{4x-1}{x^2-25} - \frac{3x^2-8}{x^2-25} + \frac{8x-7}{x^2-25}$$

Solve each equation

1. $x + \frac{12}{x} = -7$

2. $\frac{5w}{w^2 - 4} + \frac{1}{w - 2} = \frac{4}{w + 2}$

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

4. $\frac{x - 2}{6x} - \frac{x^2 - 3x - 10}{6x} = \frac{x - 2}{6}$

5. $2x^2 - 6x + 7 = 5$