

**Worksheet #4: Solving Rational Equations****Solve. Check for extraneous solutions.**

1. 
$$\frac{9}{3x} = \frac{4}{x+2}$$

2. 
$$\frac{8}{3x-2} = \frac{2}{x-1}$$

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

4. 
$$\frac{4(x-4)}{x^2 - +2x - 8} = \frac{4}{x+4}$$

5. 
$$\frac{2}{3x} + \frac{1}{6} = \frac{4}{3x}$$

6. 
$$\frac{1}{2x} + \frac{3}{x+7} = \frac{-1}{x}$$

$$7. \quad \frac{5}{x^2+x-6} = 2 + \frac{x-3}{x-2}$$

$$8. \quad \frac{2}{x-3} + \frac{1}{x} = \frac{x-1}{x-3}$$

$$9. \quad \frac{10}{x} + 3 = \frac{x+9}{x-4}$$

$$10. \quad \frac{x+3}{x-3} + \frac{x}{x-5} = \frac{x+5}{x-5}$$