

1.
$$\frac{5}{x} = \frac{7}{x-4}$$

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

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

4.
$$\frac{x+3}{x+1} = \frac{15}{x+7}$$

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

6.
$$\frac{5k}{k+2} + \frac{2}{k} = 5$$

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

8.
$$\frac{6}{x} - \frac{9}{x-1} = \frac{1}{4}$$

9. Simplify:

$$\frac{x^2 + x - 6}{x^2 + 8x + 15}$$

10. Simplify:

$$\frac{3x^2 + 5x - 2}{7x^2 + 12x - 4}$$

11. Simplify:

$$\frac{x+7}{7x+35} \cdot \frac{x^2-3x-40}{x-8}$$

12. Factor and Solve:

$$5x^2 - 44x + 120 = -30 + 11x$$