Solve the equation algebraically. Check for extraneous solutions.

$$x + \frac{1}{x - 4} = 0$$

Solve the equation algebraically. Check for extraneous solutions.

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

Solve the equation algebraically. Check for extraneous solutions.

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