

Solve.

Extraneous Solutions

$$\frac{-4}{5x+10} = \frac{2}{x+2}$$

$$-4(x+2) = 2(5x+10)$$

$$\begin{array}{rcl} -4x - 8 & = & 10x + 20 \\ + 4x & & + 4x \end{array}$$

$$\begin{array}{rcl} -8 & = & 14x + 20 \\ -20 & & -20 \end{array}$$

$$\frac{-28}{14} = \frac{14x}{14}$$

$$x = -2$$

NO SOL

-2 makes at least one denominator equal to zero which means this value is not allowed (it's not in the Domain of this function)

Solving Rational Equations.

Basic Steps:

1. Eliminate ALL denominators
2. Solve the equation that remains after eliminating denominators
3. Check for extraneous solutions