



Rational Equations

Name: _____

Date: _____

Score: _____

Direction: Solve each rational equation. Check your answers for extraneous solutions. Show all your work in the space provided.

$$1) \frac{3}{x+5} + \frac{4}{x-5} = 1$$

$$2) \frac{x-2}{x^2-4} + \frac{1}{x+2} = \frac{1}{x-2}$$

$$3) \frac{x}{x-1} - \frac{9}{x+1} = \frac{1}{x-1}$$

$$4) \frac{x-6}{x^2-4x-12} + \frac{2}{x+2} = \frac{1}{x-6}$$



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$$1) \frac{3}{x+5} + \frac{4}{x-5} = 1$$

$$x_1 = -3, x_2 = 10$$

$$2) \frac{x-2}{x^2-4} + \frac{1}{x+2} = \frac{1}{x-2}$$

$$x = 6$$

$$3) \frac{x}{x-1} - \frac{9}{x+1} = \frac{1}{x-1}$$

$$x = 8$$

$$4) \frac{x-6}{x^2-4x-12} + \frac{2}{x+2} = \frac{1}{x-6}$$

$$x = 10$$