

Must show all steps and all work to earn full credit.

Multiply or divide as indicated. Write the answer in lowest terms.

$$1) \frac{2t^2 - 13t - 24}{3t^2 - 2t - 5} \cdot \frac{3t^2 + 13t - 30}{t^2 - 2t - 48}$$

Add or subtract. Write the answer in lowest terms.

$$2) \frac{x}{x-7} + \frac{14}{x+7} - \frac{98}{x^2 - 49}$$

Simplify the complex fraction.

$$3) \frac{\frac{64x^2 - 16y^2}{xy}}{\frac{8}{y} - \frac{4}{x}}$$

Solve the equation.

$$4) \frac{x}{2x+2} = \frac{-2x}{4x+4} + \frac{2x-3}{x+1}$$

Solve the formula for the specified variable.

$$5) I = \frac{E}{R+r} \text{ for } r$$