

Name: _____

1. Simplify each of the following completely.

$$(a) \frac{2x^2 - 5x - 12}{2x^2 + 11x + 12} \cdot \frac{x^2 - 2x - 24}{x^2 + 2x - 24}$$

$$(b) \frac{\frac{5}{x-4} + \frac{2x}{x+4}}{\frac{1}{x+4} - \frac{6}{x-4}}$$

2. Solve each of the following equations.

$$(a) 4x^2 - 3x - 2 = 0$$

$$(b) \frac{2}{y-3} + \frac{4}{y-1} = \frac{5}{y-1}$$

$$(c) S = \frac{a}{1-r}; \text{ for } r$$