

Name: _____

1. Simplify each of the following completely.

$$(a) \frac{2x^2 - 3x - 20}{2x^2 - 9x - 35} \cdot \frac{x^2 - 3x - 28}{x^2 + 3x - 28}$$

$$(b) \frac{\frac{7}{x-2} + \frac{x}{x+2}}{\frac{1}{x+2} - \frac{3}{x-2}}$$

2. Solve each of the following equations.

$$(a) 2x^2 - 3x - 1 = 0$$

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

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