
2. Factor completely:

(a) $2x^2 - 6x - 8 =$

(b) $\quad \quad \quad 10 =$

(c) $x^3 - 9x^2 - 10x =$

(d) $3x^2 - 2x - 1 =$

(e) $4x^3 - 20x^2 - 24x =$

3. Factor and simplify:

(a) $\frac{x^2 - x - 2}{2x^3 - 4x^2 - 6x} \cdot \frac{x^2 - 4x - 5}{x^2 - 1} \cdot \frac{x^2 - 3x - 10}{3x^2 - 18x - 27} =$

Name:



Name:

5.

Name:

Solve the following equations:

(a) $31 - 3x = 3x - 2$

(b) —

(c) $4x^2 - 400 = 0$

(d) $x^2 - 11 = 67$

(e) $2x^2 - 3x - 5 = 0$

$$(l) \frac{2x}{x-1} = \frac{1}{3x-3}$$

8. Solve the following inequalities:

$$(a) \frac{2x-7}{5} < \frac{5x-3}{2}$$

$$(b) - < \text{---}$$

$$(c) \frac{1}{2} < \frac{5x-6}{4} < 7$$

$$(d) 5x < \frac{x-3}{2}$$

$$(e) 6x-4 < 2x-1 < 8x-4$$

$$(f) 2x-3x-4 < 4x-2$$

$$(g) 8x-2x-2 < 3x-2 < 4x$$