

Precalculus Prerequisites Section 0.3 Exercises

1. In the following exercises, solve the given linear equation for x .

(a) $\frac{3(x-1)}{2} = \frac{9}{5} - \frac{5x+1}{10}$

(b) $5x + 2y = -7xy + 3x$

2. Find values for c so that the equation: $3x + 2c = 1 + c(x + 1)$

(a) has $x = -1$ as a solution.

(b) has no solution (that is, the equation is a contradiction.) Is it possible to find a value of c so the equation is an identity? Explain.

3. Solve the given inequality. Write your answer using interval notation.

(a) $0 \leq \frac{3-x}{2} \leq 4$

(b) $2(x-3) + 5 \leq 4x - 3$

(c) $4x - 3 < 2(x-3) + 5$ or $2(x-7) - 1 \geq -(x-6)$