math Antics Exercises

Name: _____

Date: _____

# Inequalities In Algebra

**1** Solve for y and then graph the inequality.

$3 + x < y + 1$

$-1 \quad\quad -1$

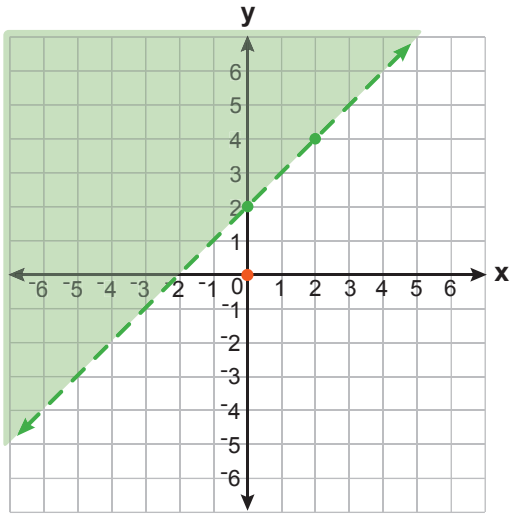
$x + 2 < y$

$y > x + 2$

Test Point (0,0)

$0 > 2$ False

(shade other side)




**2** Solve for y and then graph the inequality.

$9 - 8x \leq -2y - 3$

$+3 \quad\quad +3$

$\frac{-8x + 12}{-2} \leq \frac{-2y}{-2}$

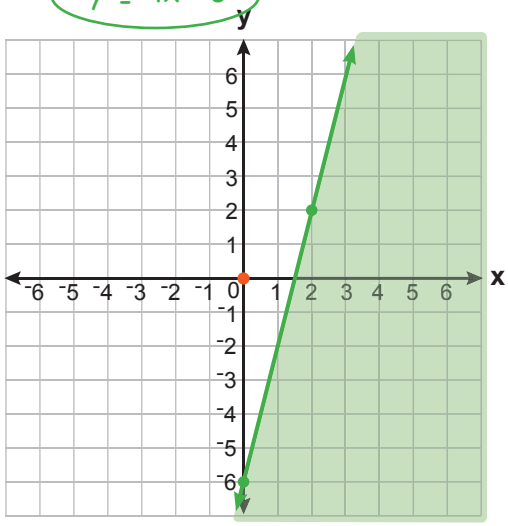
$4x - 6 \geq y$

$y \leq 4x - 6$

Test Point (0,0)

$0 \leq -6$ False

(shade other side)




**3** Solve for y and then graph the inequality.

$\frac{-(y + 4)}{-1} > \frac{\frac{1}{4}x - 5}{-1}$

$y + 4 < \frac{-1}{4}x + 5$

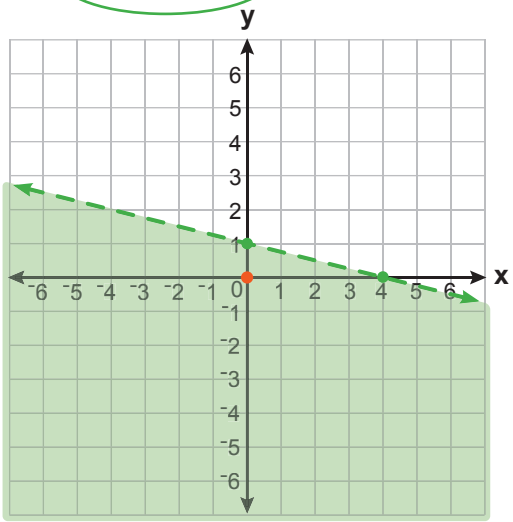
$-4 \quad\quad -4$

$y < \frac{-1}{4}x + 1$

Test Point (0,0)

$0 < 1$ True

(shade same side)




**4** Solve for y and then graph the inequality.

$-3y - 3x \geq -y + 4$

$+y \quad +3x \quad +y \quad +3x$

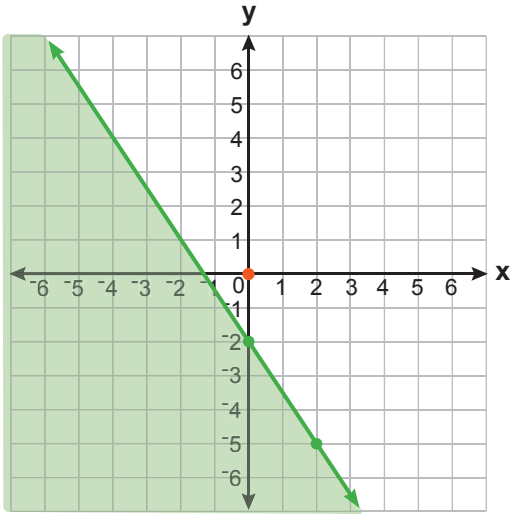
$\frac{-2y}{-2} \geq \frac{3x + 4}{-2}$

$y \leq \frac{-3}{2}x - 2$

Test Point (0,0)

$0 \leq -2$ False

(shade other side)






See Video for step-by-step solutions to each problem.