



Math Virtual Learning

Algebra 1 S1

Graphing Two-Variable Inequalities

April 16, 2020



Algebra 1 S1

Lesson: April 16, 2020

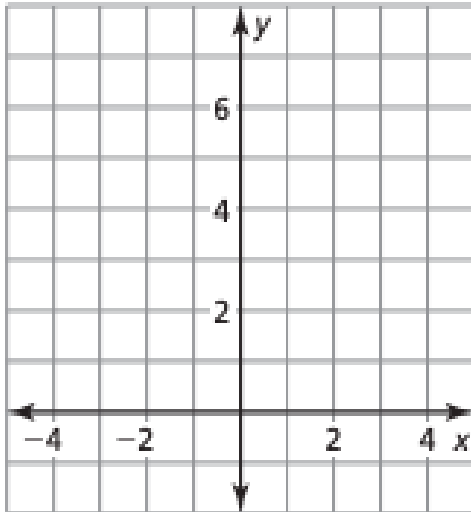
Objective/Learning Target:

Students can graph two variable inequalities

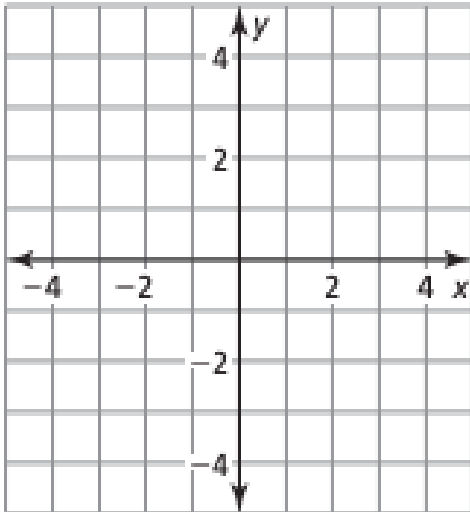
BELL WORK

Graph each inequality in two variables:

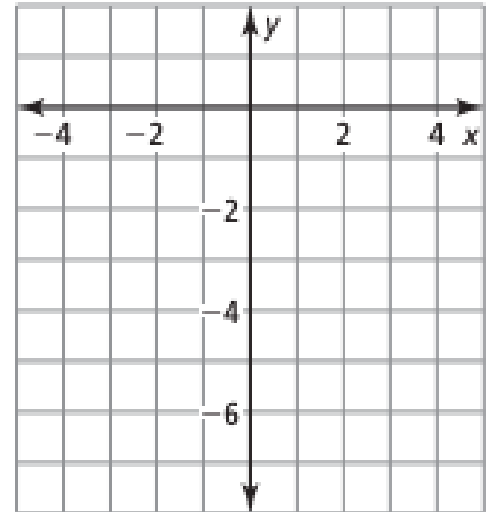
a. $y > x + 5$



b. $y \leq -\frac{1}{2}x + 1$



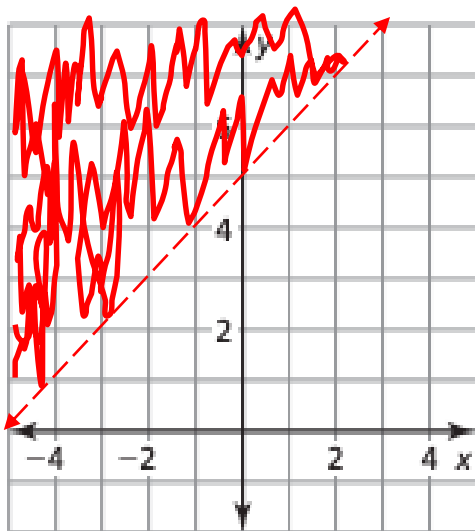
c. $y \geq -x - 5$



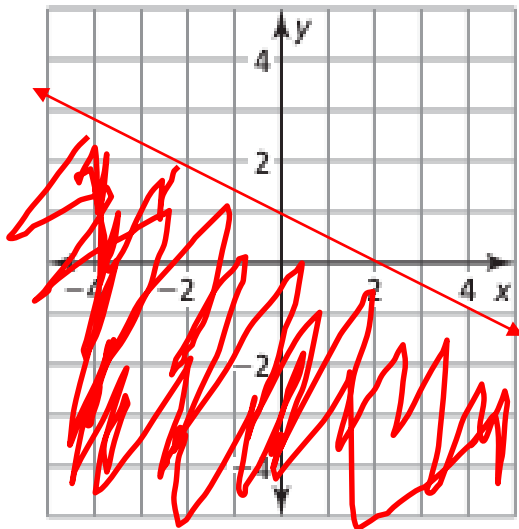
BELL WORK → Answer Key

Graph each inequality in two variables:

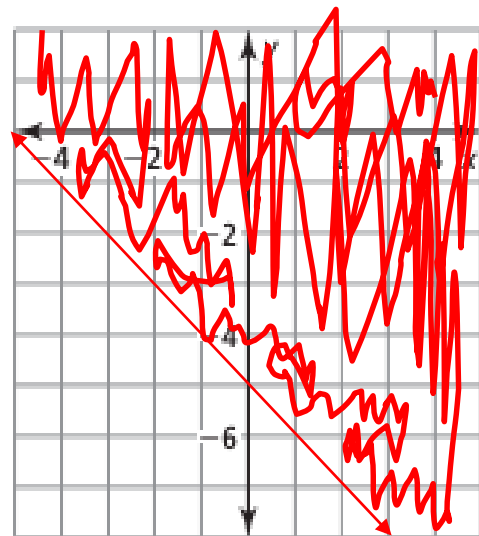
a. $y > x + 5$



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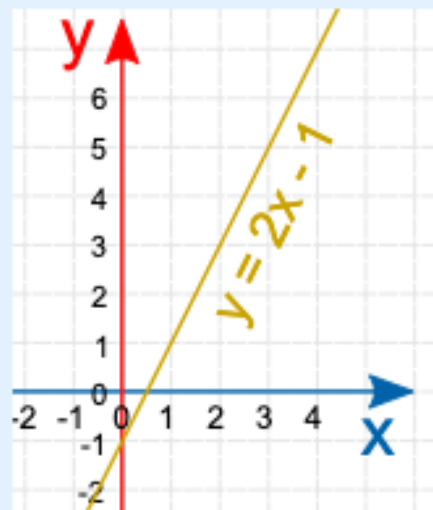


**Today we will review graphing
inequalities in two variables**

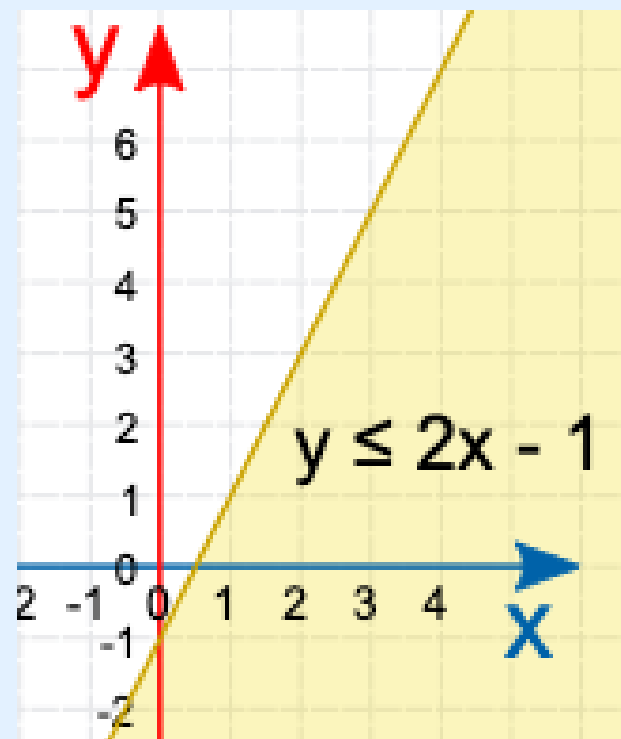
Example 1

Example: $y \leq 2x - 1$

1. The inequality already has "y" on the left and everything else on the right, so no need to rearrange
2. Plot $y = 2x - 1$ (as a solid line because $y \leq$ includes **equal to**)



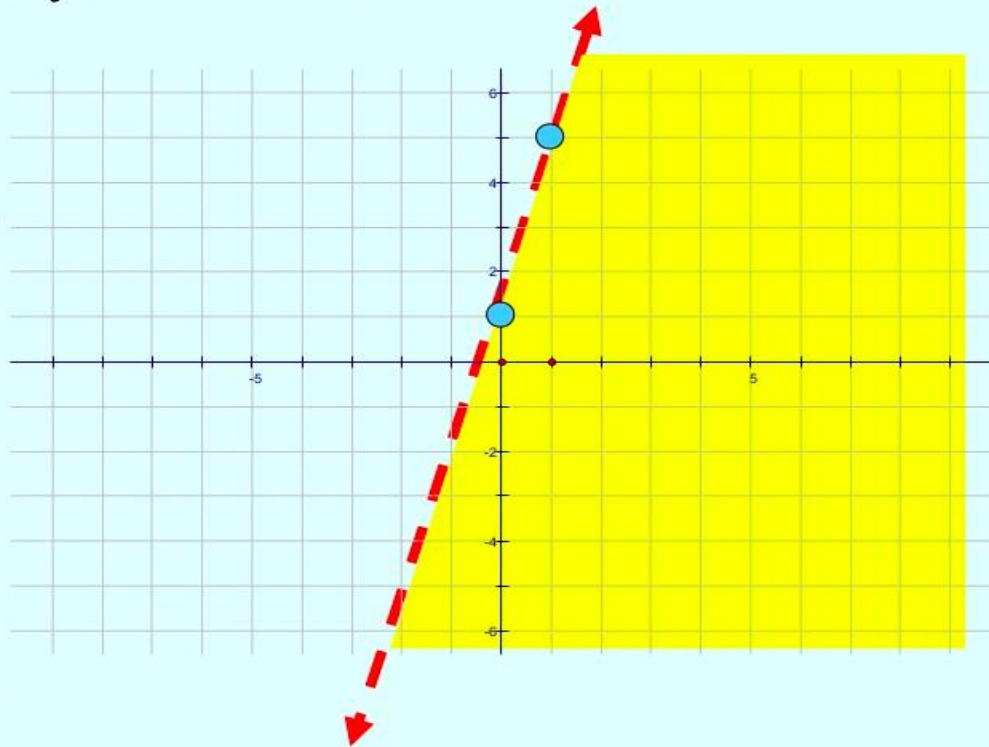
3. Shade the area below (because y is **less than** or equal to)



Example 2

- Graph the line using the y-intercept of $(0,1)$ and the slope of 4.
- The inequality does not have an equal to, so it is a dotted line.
- The y is less than, so shade the area below the line

$$y < 4x + 1$$



Review Problems 1

Enter your first name.

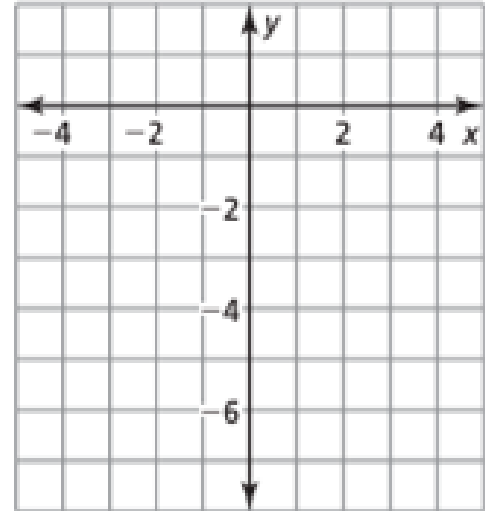
Click “Skip for now.”

Click start game.

Review Problems 2

Exit Pass

Graph the inequality: $2y > 4x - 6$



Answer

Solve for y.

$$2y > 4x - 6$$

$$\frac{2y}{2} > \frac{4x}{2} - \frac{6}{2}$$

$$y > 2x - 3$$

