

Linear Inequalities in Two Variables

Finite Math

14 April 2017

Graphing Linear Inequalities in Two Variables

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- 2 Choose a test point anywhere in the plane, as long as it is not on the line.
- 3 Plug the point from step (2) into the inequality. Is the inequality true? Shade in the side of the line with that point. If the inequality is false, shade in the other side.

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Example

Graph the inequality

$$6x - 3y \geq 12$$

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Graph the inequality

$$4x + 8y < 32$$

Now You Try It!

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Graph the inequality

$$2y \leq 10$$

Example

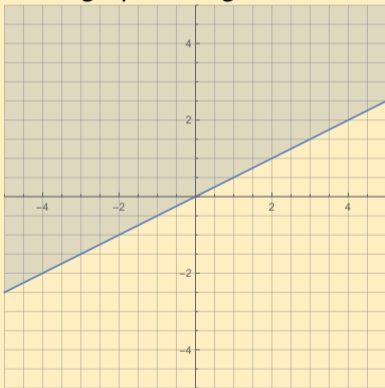
Graph the inequality

$$2x - 5y > 10$$

Finding an Inequality from a Graph

Example

Consider the graphed region below.

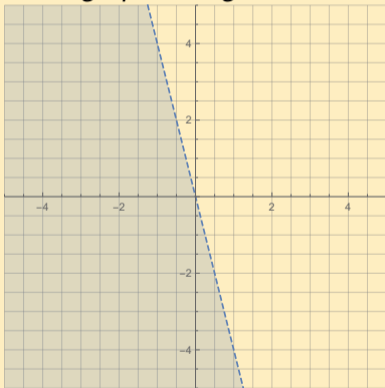


- Find an equation for the boundary of the region in the form $Ax + By = C$.
- Find a linear equality which describes this region.

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- Find an equation for the boundary of the region in the form $Ax + By = C$.
- Find a linear equality which describes this region.