

Sec 5.6

GRAPHING LINEAR INEQUALITIES IN 2 VARIABLES

SOLUTION OF A LINEAR INEQUALITY IN TWO VARIABLES

↳ an ordered pair (x, y) that makes the inequality true.

$$ax + by < c$$

$$> c$$

$$\leq c$$

$$\geq c$$

↳ $(-2, 2)$ a solution of $3x - y < 2$

$$-6 - 2 < 2$$

$$-8 < 2 \quad \checkmark \text{ Yes}$$

↳ $(1, 3)$ a solution of $4x - y \geq 5$

$$4 - 3 \geq 5$$

$$1 \geq 5 \quad \times \text{ No}$$

GRAPHING

1) GRAPH THE BOUNDARY LINE

--- (Dashed) if $>$ or $<$

_____ (Solid) if \geq or \leq

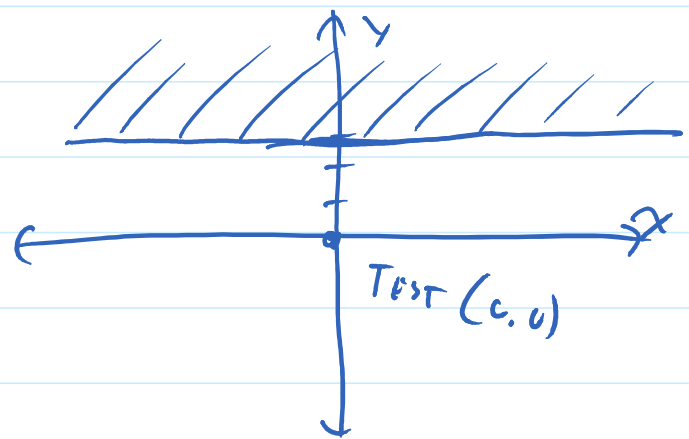
2) TEST A POINT NOT ON BOUNDARY LINE

A) IF TRUE, SHADY THAT SIDE

B) IF FALSE, SHADY THE OTHER SIDE

Ex $y \geq 3$

$0 \geq 3$ F



$x + y < 2$

$0 + 0 < 2$

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