

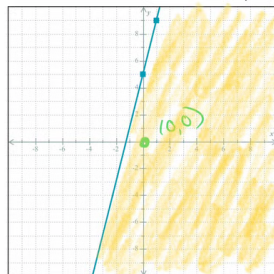
Algebra /

Graphing a linear inequality in the plane: Slope-intercept form

Graphing a linear inequality in the plane: Slope-intercept form

Graph the inequality.
 $y \leq 4x + 5$

$m = \frac{4}{1}$ $\frac{\text{up } 4}{\text{right } 1}$
 $b = 5$ $(0, 5)$ *Start here*



Still use $y = mx + b$

2 differences:

① solid $\leq, \geq$
 dashed $<, >$

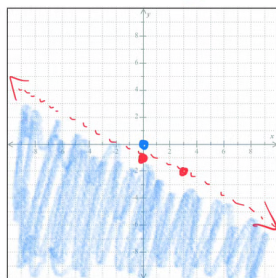
② Shade $\times$

pick any point not on the line
 $(0, 0)$ $0 \leq 4(0) + 5$
 $0 \leq 5$ Yes

Graphing a linear inequality in the plane: Slope-intercept form

Graph the inequality.
 $y < -\frac{1}{3}x - 1$

$m = -\frac{1}{3}$ $\frac{\text{down } 1}{\text{right } 3}$
 $b = -1$ $(0, -1)$ *Start here*



$<$ - dashed line $\times$

pick any point
not on line

$(0, 0)$ $0 < -\frac{1}{3}(0) - 1$
 $0 < -1$

No, false
 Shade away
 from the point

Note: The Solve feature is not available to s