

Graphing Inequalities

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Is the point (2, -3) in the solution area?
Yes

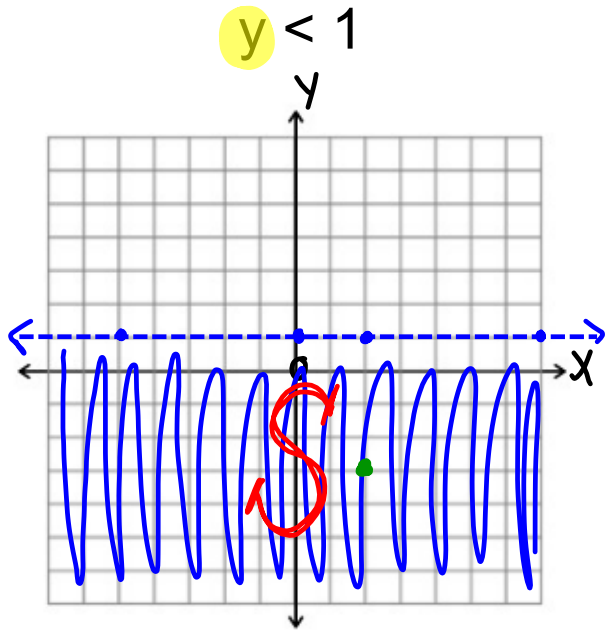
$-3 < 1$
True

Is the point (2, 3) in the solution area?
NO

$3 < 1$
False

Is the point (2, 1) in the solution area?
NO

$1 < 1$
False



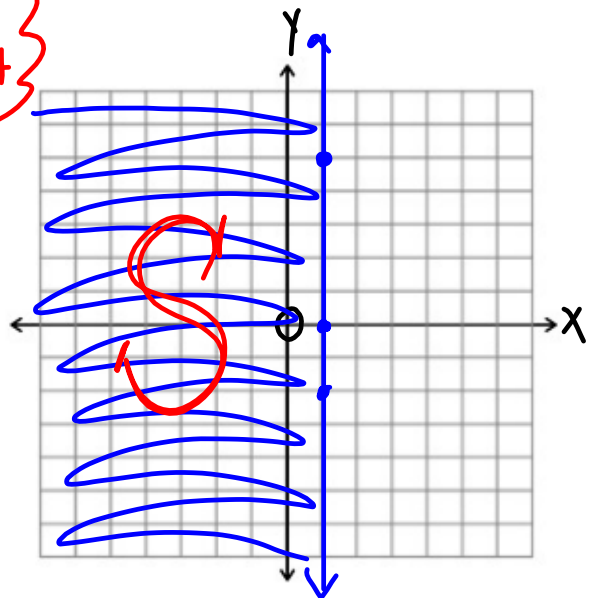
$x \leq 1$ (Less → Left)
(Greater → Right)
x-intercept

Is the point (-2, 3) in the solution area?
Yes!

$-2 \leq 1$
True

Is the point (1, 3) in the solution area?
Yes!

$1 \leq 1$
True



$$3x - 2y < 8$$

$$\begin{array}{r} 3x - 2y < 8 \\ -3x \\ \hline -2y < -3x + 8 \\ \\ \\ \\ \\ \hline -2y < -3x + 8 \\ \\ \\ \\ \hline y > \frac{3}{2}x - 4 \end{array}$$

Sign flips: neg. $y > \frac{3}{2}x - 4$

Is the point (2, 3) in the solution area?

$$3(2) - 2(3) < 8$$

$$6 - 6 < 8$$

$$0 < 8$$
 True ✓

Is the point (10, 11) in the solution area?

$$3x - 2y < 8$$

$$3(10) - 2(11) < 8$$

$$30 - 22 < 8$$

$$8 < 8$$
 False
NO.

(x, y)