Linear Inequalities

WOLFF

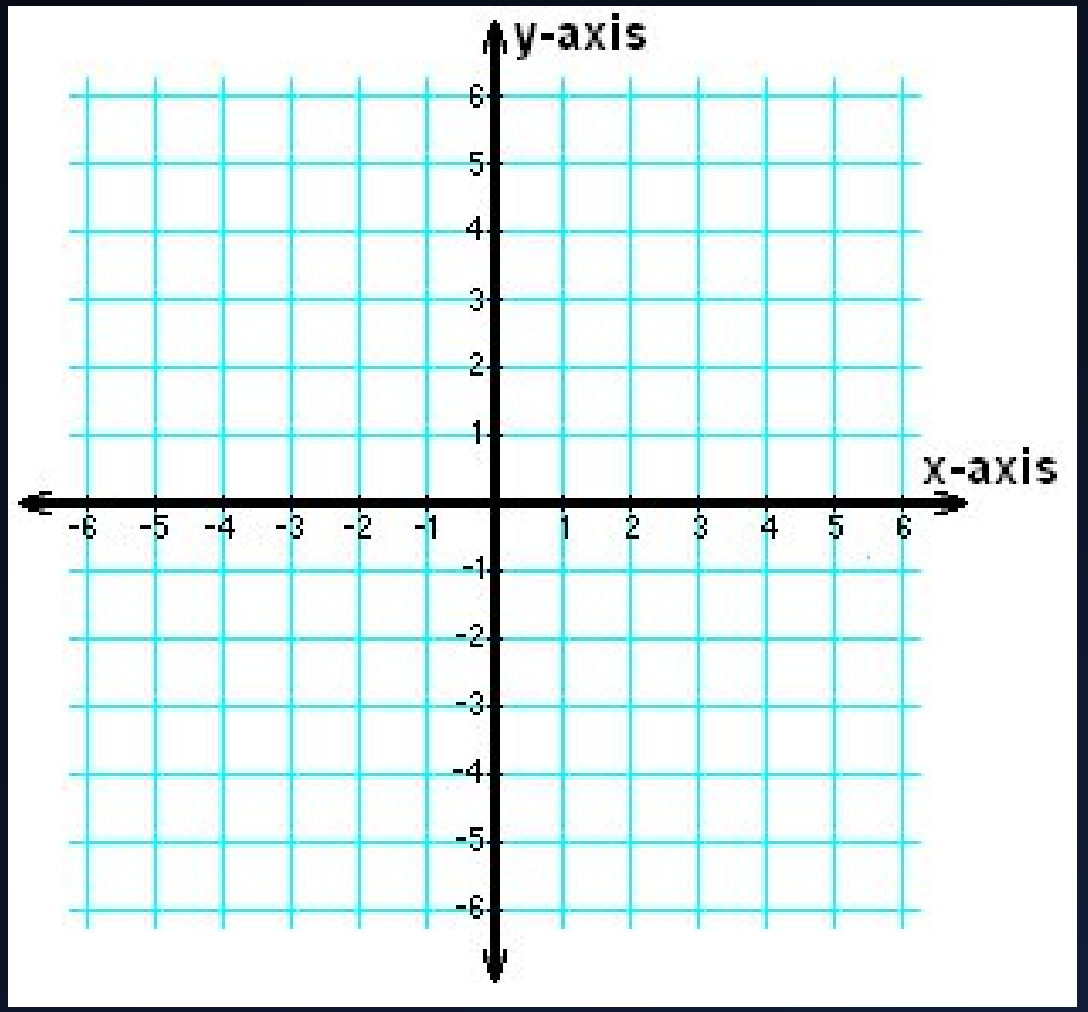
ALGEBRA 1H

What's to remember?

- Identify or get the inequality in slope-intercept, point-slope, or standard form
  - If standard form, calculate the intercepts
- Plot points on the graph
- > or < calls for a dashed line
- ≥ or ≤ calls for a solid line
- Shade above or below the line
  - Use y-intercept as a guide
  - You might have to convert standard form to be sure 🏝

Let’s start easy 🏝 with slope-intercept

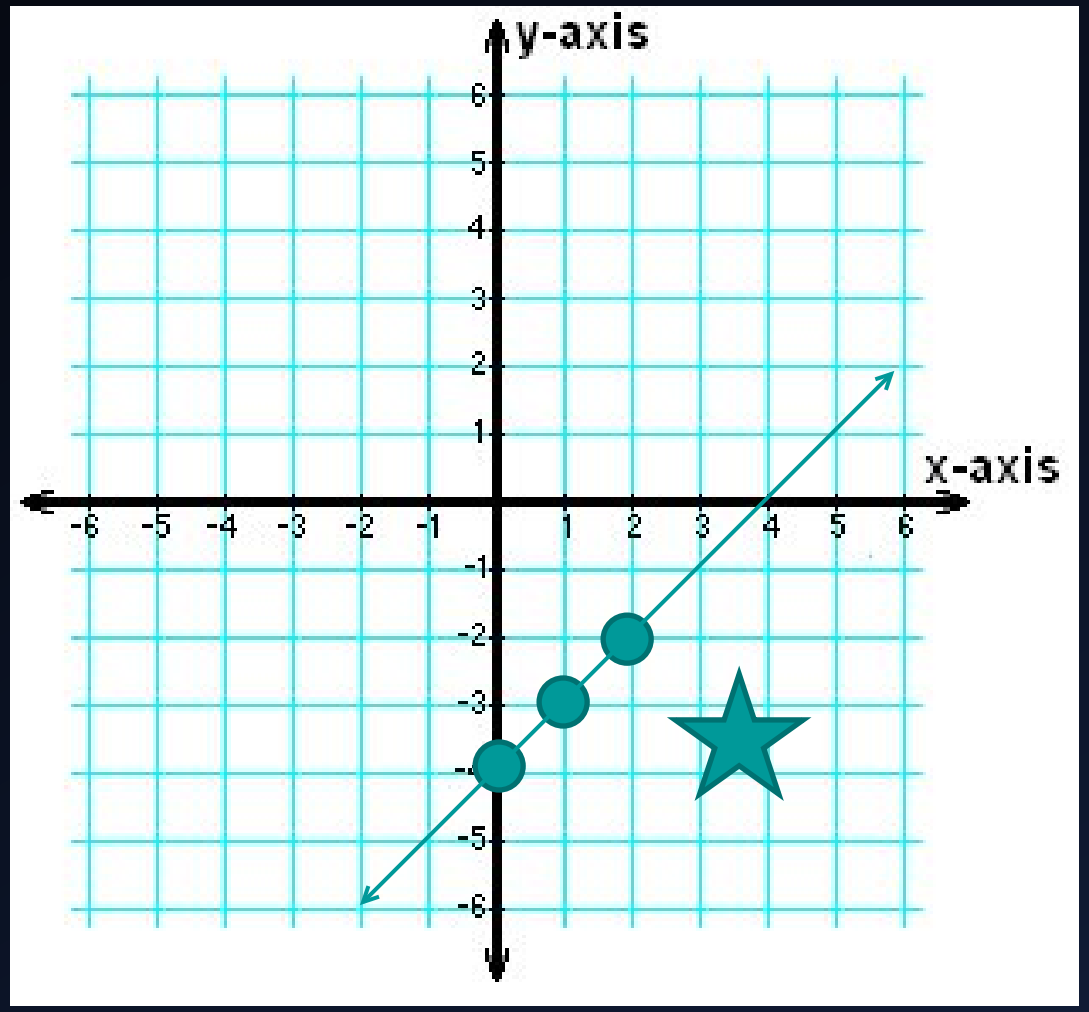
$$y \leq x - 4$$



How’d you do?

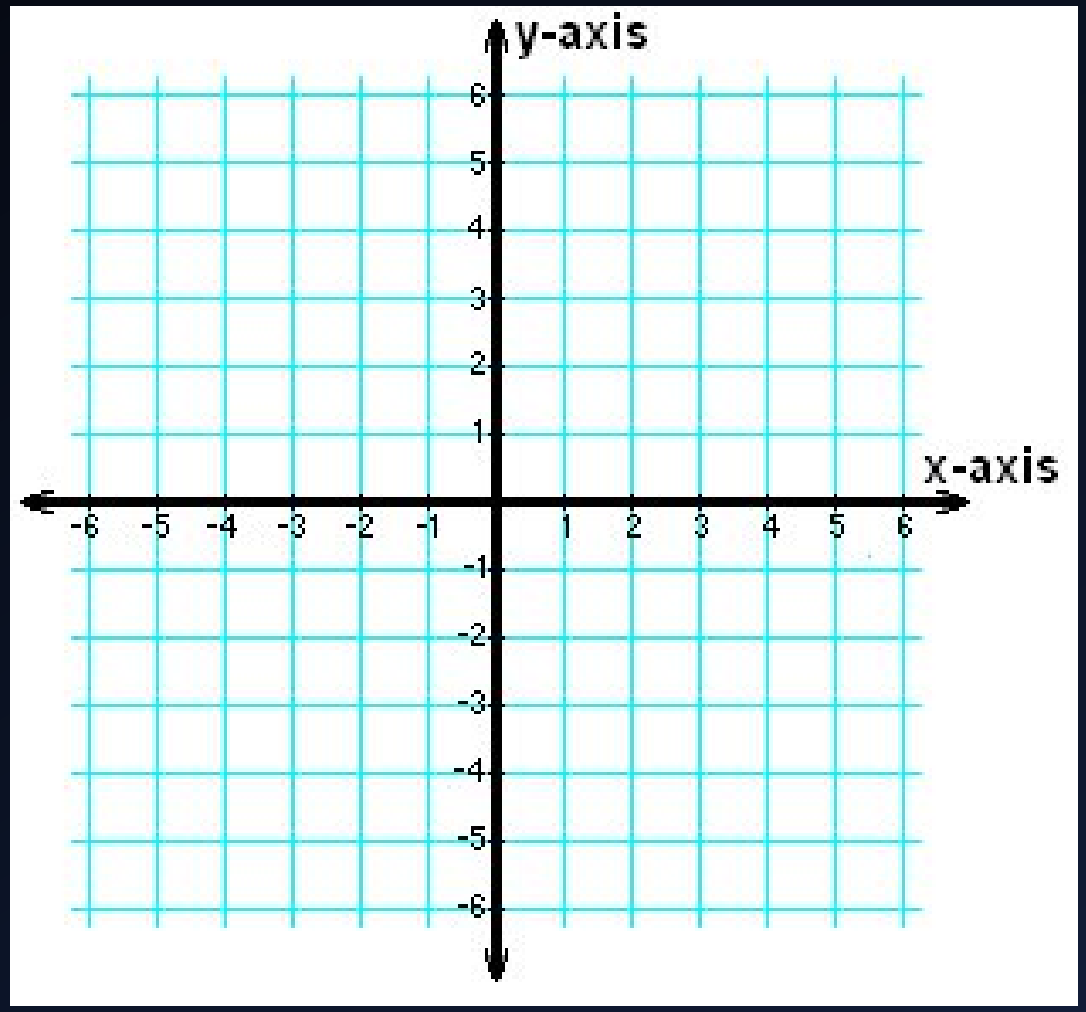
$y \leq x - 4$

= shaded area



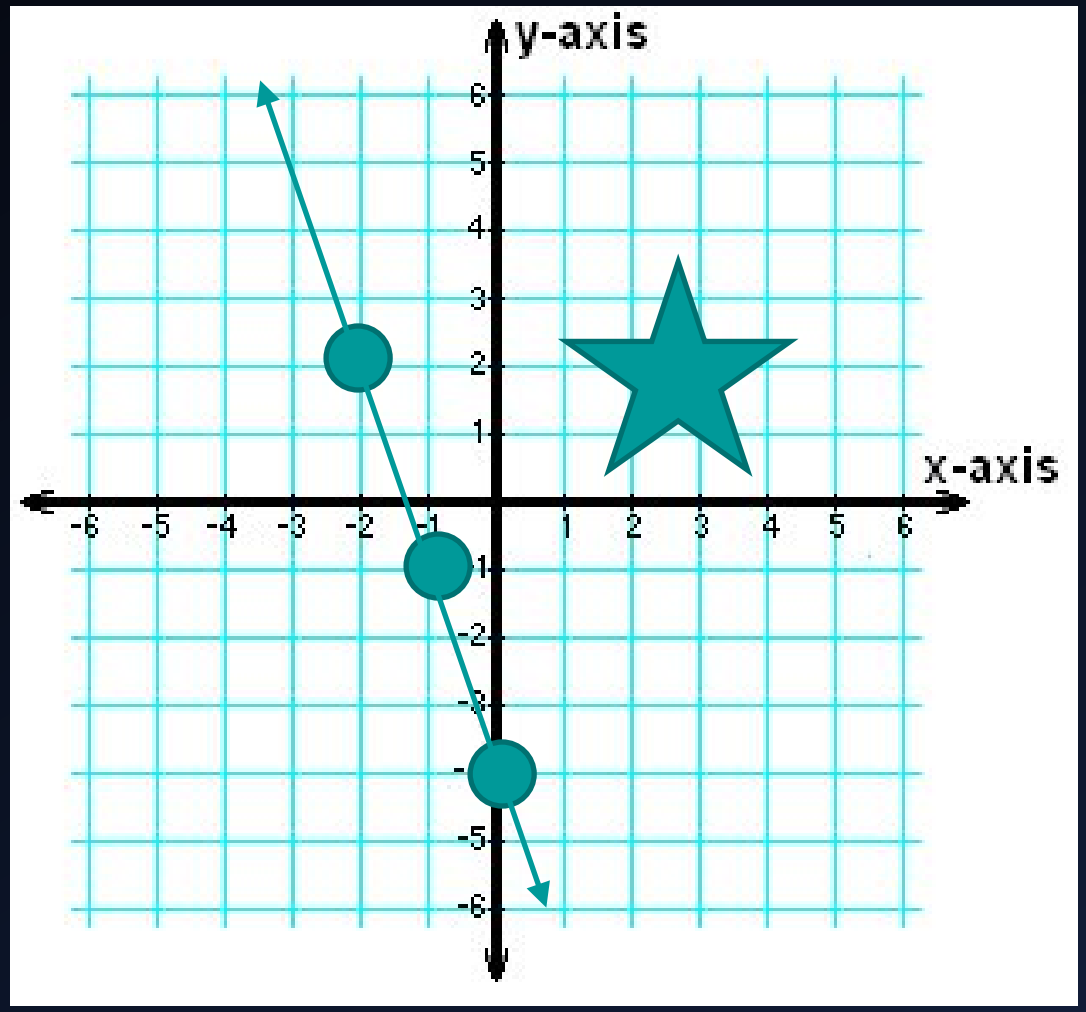
Point-Slope

$$y - 2 \geq -3(x + 2)$$



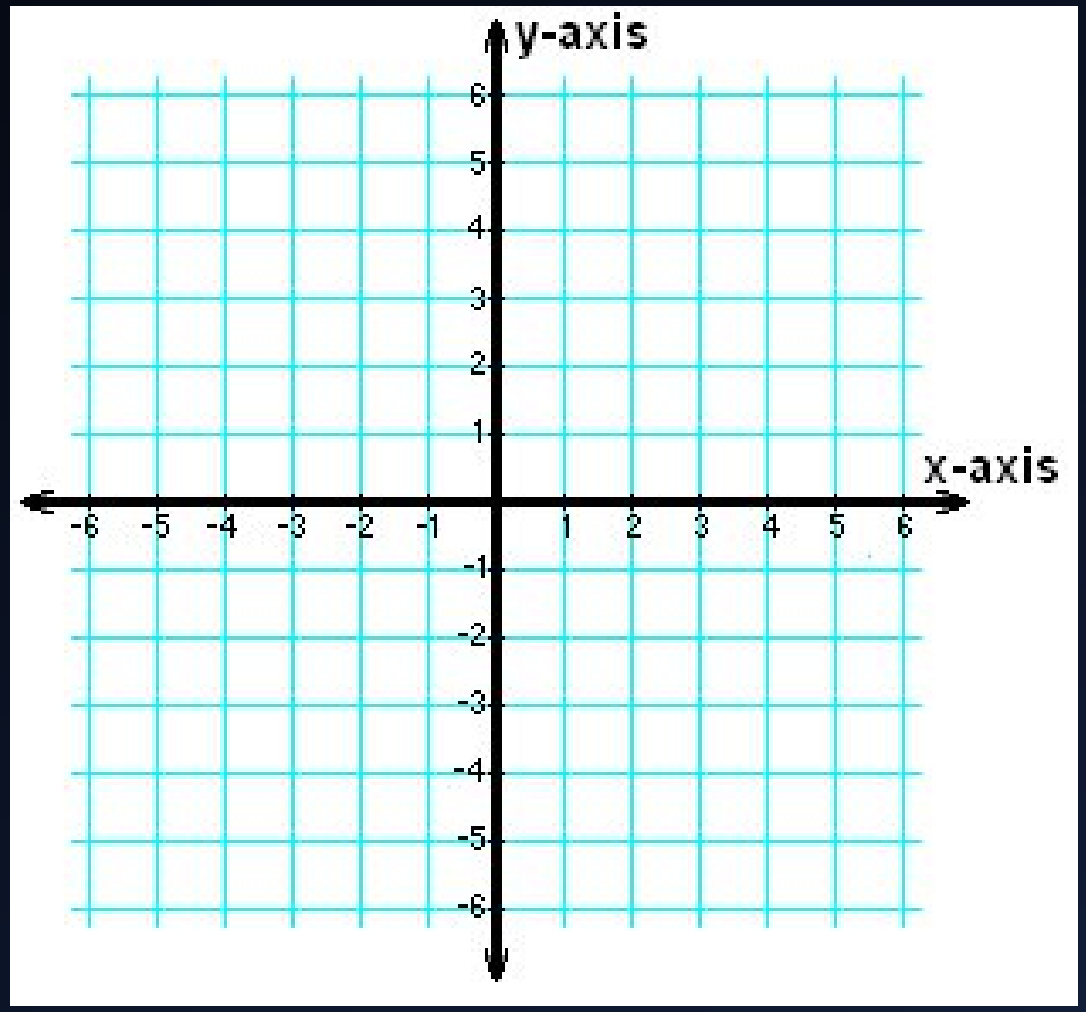
How did you do?

$y - 2 \geq -3(x + 2)$



Standard Form

$2x - 4y > 6$

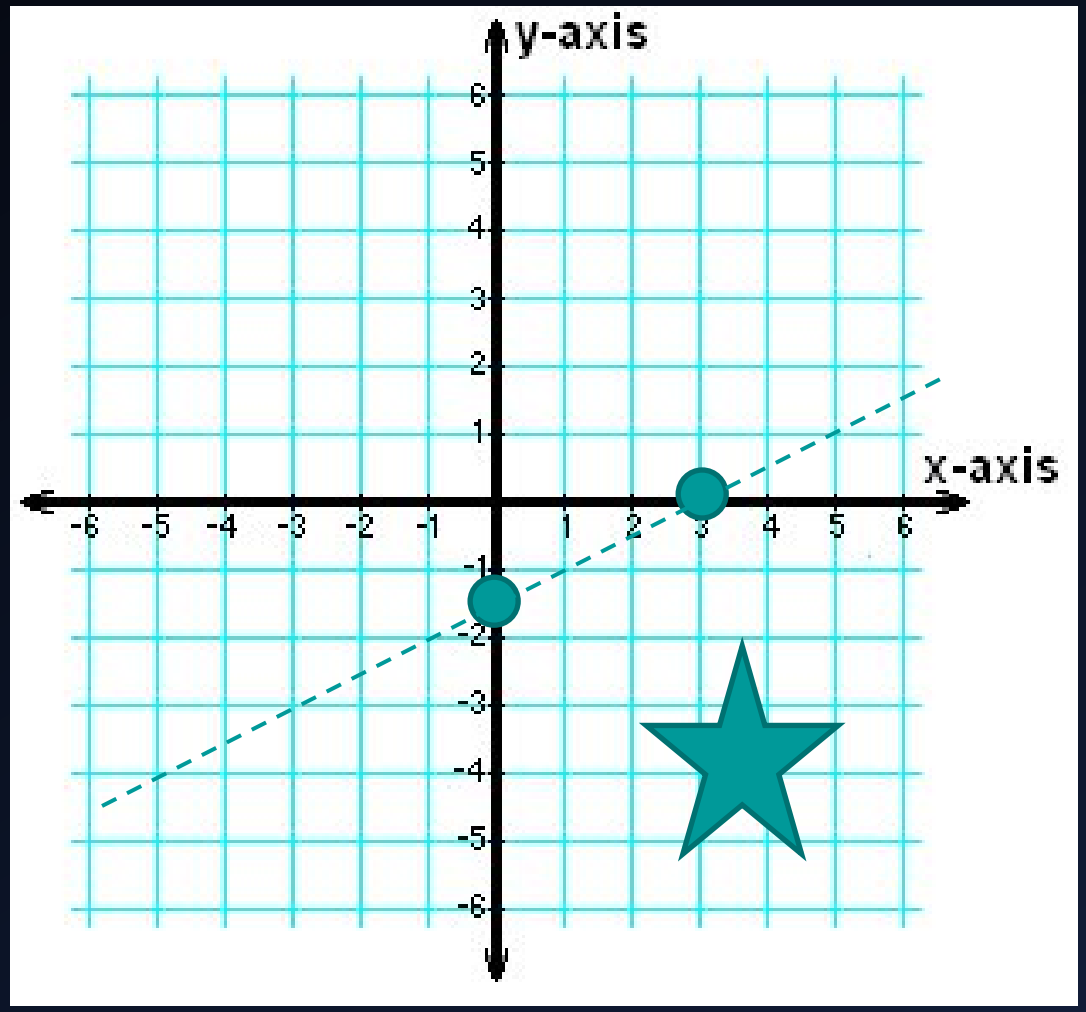


How did you do?

$2x - 4y > 6$

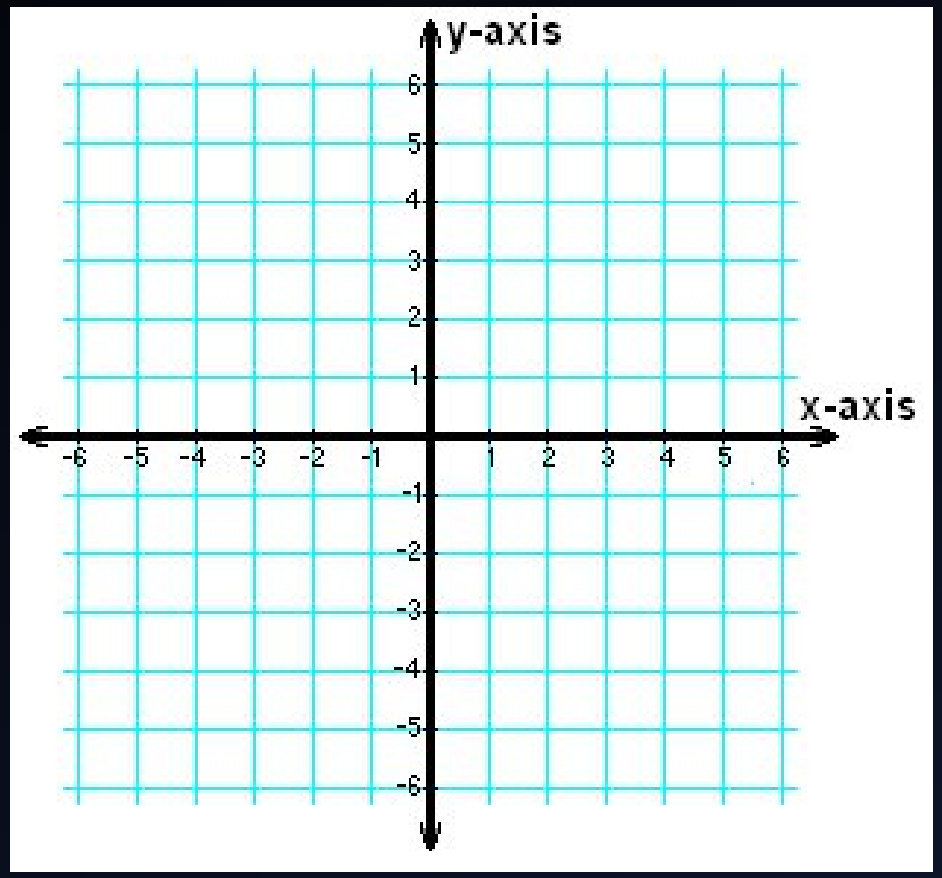
The catch!

$y < \frac{1}{2}x - 1.5$

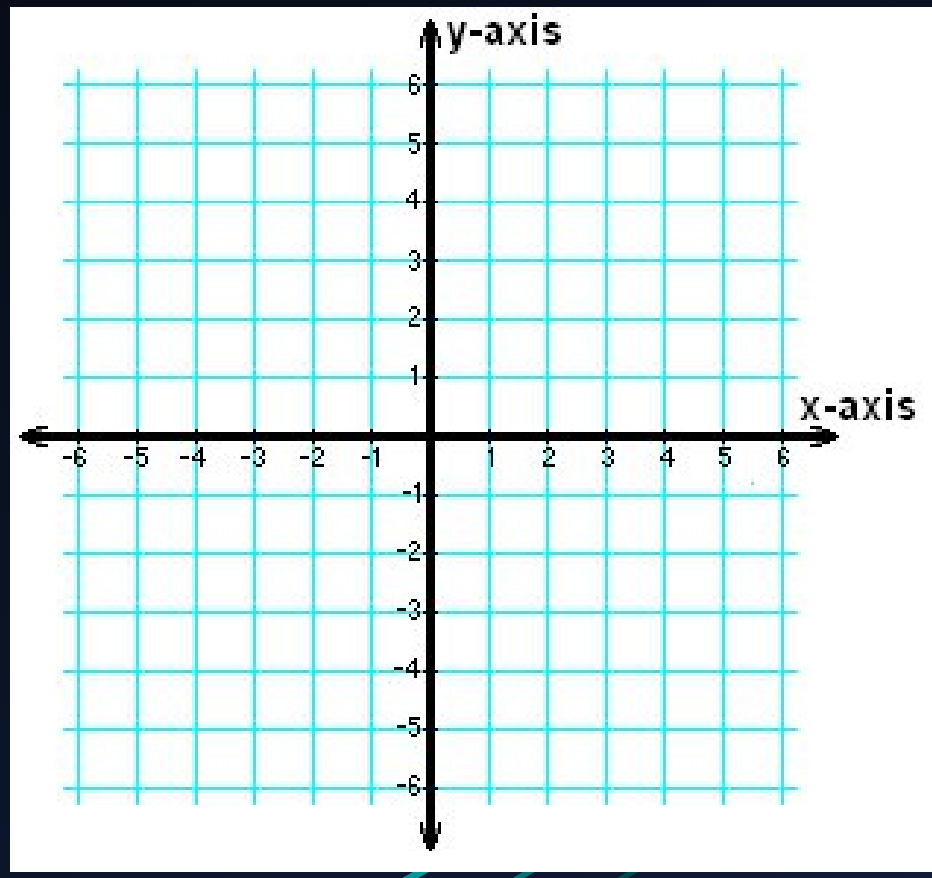


Don’t forget the basics!

$y < 3$

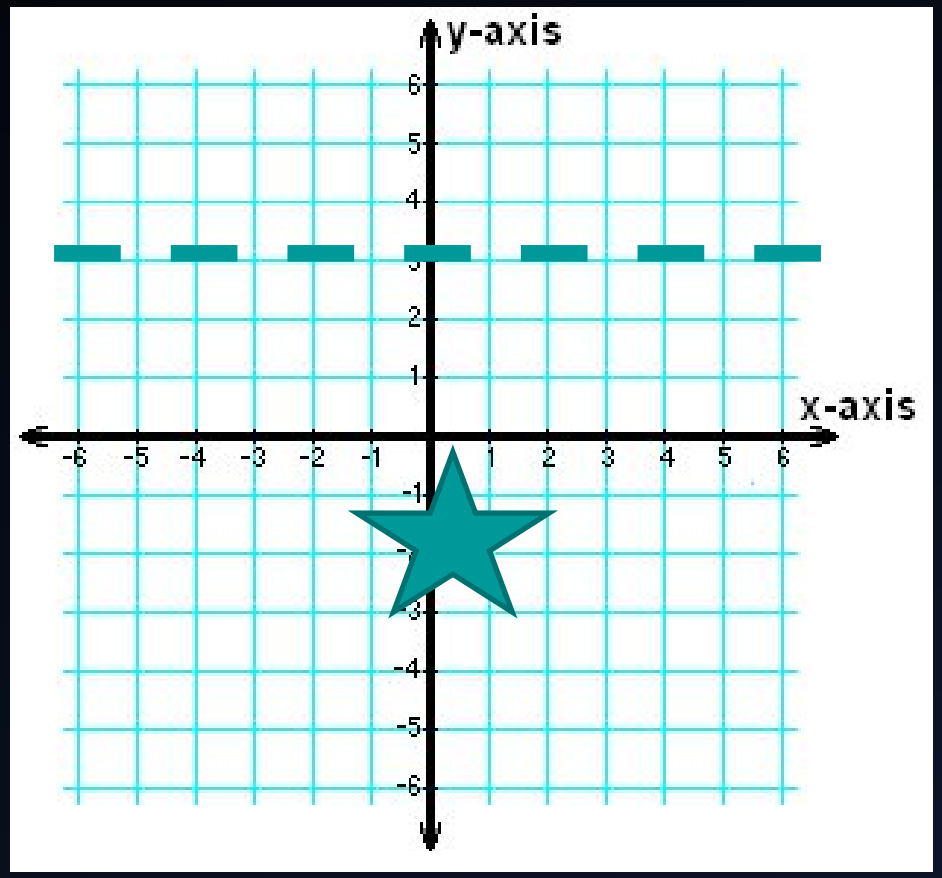


$x \geq -4$



Don’t forget the basics!

$y < 3$



$x \geq -4$