6. To solve this problem, you will need to graph the **intersection** of all five inequalities on one common XY plane. Do this on the grid below. Have the bottom left be the origin, with the horizontal axis representing X and the vertical axis representing Y. Label the axes with what they represent and **label your lines as you graph them**.

It might help if you re-write your 5 inequalities here:

\[ y \geq 2x \]
\[ y = -\frac{1}{2}x + 1 \]
\[ x \geq 0 \]