12.2 Graphing Systems of Linear Inequalities (pg. 547)

Explore (pg. 547)

Solve the system of inequalities by graphing

\[
\begin{align*}
    x + 3y &> 3 \\
    -x + y &\leq 6
\end{align*}
\]
Example 1 (pg. 549)
Graph the system of linear inequalities. Give two ordered pairs that are solutions and two that are not.
\[
\begin{align*}
-6x + 3y &\leq 12 \\
y &> \frac{1}{2} x - 3
\end{align*}
\]

Solutions:

Not solutions:
Your Turn (pg. 550)

Graph each system of linear equations. Describe the solutions.

\[
\begin{align*}
  y &< -2x - 3 \\
  y &\leq -2x + 1
\end{align*}
\]
Graph each system of linear equations. Describe the solutions.

\[
\begin{align*}
y &< \frac{1}{3}x - 6 \\
y &\leq \frac{1}{3}x + 5
\end{align*}
\]
Graph each system of linear equations. Describe the solutions.

\[
\begin{align*}
&y \geq \frac{2}{5}x + 4 \\
&y \leq \frac{2}{5}x - 6
\end{align*}
\]