Graphing Lines

You ultimately need 2 points to graph a line.

**Intercept Method**

1. Find x-intercept (let y = 0)
2. Find y-intercept (let x = 0)
3. Find a third point (if desired)

**Example**

Graph \(5x - 2y = -10\)

<table>
<thead>
<tr>
<th>x</th>
<th>y</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>-2</td>
<td>0</td>
</tr>
</tbody>
</table>

**Slope-Intercept Method**

1. Solve the equation for \(y\)
2. Identify the slope & y-intercept
3. Plot the y-intercept. (starting point)
4. Use the slope to plot more points

**Example**

Graph \(5x - 2y = -10\)

\[
5x - 2y = -10 \\
-2y = -5x - 10 \\
y = \frac{-5x}{-2} - \frac{10}{-2} \\
y = \frac{5}{2}x + 5
\]

\(m = \frac{5}{2} = \frac{-5}{-2} \quad (0, 5)\)