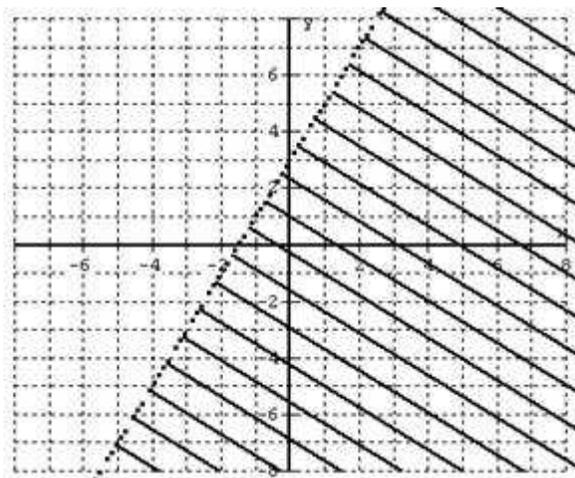


Graphing Linear Inequalities With Two Variables

Quick Review	
To graph a linear inequality	for example, $y < 2x + 3$
first graph the equation	$y = 2x + 3$
Draw the equation as a dotted line since the inequality is $<$. If it have been \leq then draw it as a solid line.	
The line divides the plane into two regions. Pick a point in each region	for example, $(0, 0)$ and $(1, 7)$
Substitute <u>into the inequality</u> . If the result is true then shade that point and the entire region. If the result is false then shade nothing.	In this case, $(0, 0)$ gives $0 < 3$ which is true, so we would shade the origin and everything below the line. The solution is shown below.



Problems

Graph the solution to each inequality

1. $y > x$
2. $y \leq x + 4$
2. $2x - y = 10$
3. $x - 2y = 10$
4. $x > -4$
5. $y \geq 2$