3.7 – SYSTEMS OF LINEAR INEQUALITIES:

*** System means graphing more than one inequality on the same coordinate plane. Inequalities should always be in slope intercept form ***

Do the same 3 steps separately for each graph.

Graph!

$y < 2x - 3$

$2x + y > 2$

convert to slope intercept form.

$y > -2x + 2$

$y < 2x - 3$

$2x + y > 2$ $\qquad$ $y > -2x + 2$

$y < 2x - 3$ $\qquad$ $y > -2x + 2$

x	y
0	−3
1	−1

x	y
0	2
1	0

SYSTEMS OF LINEAR INEQUALITIES:

Finding solutions that satisfy 2 or more inequalities.

Graph each inequality separately. Solutions are in the overlapping shaded areas.

Intersection of a system of inequalities (and) - the solution is where the 2 graphs overlap.

Union of a system (or) - of inequalities is everything.

Let's do Ex 3 and 4
on p.186.