

*(fold paper into quarters)*

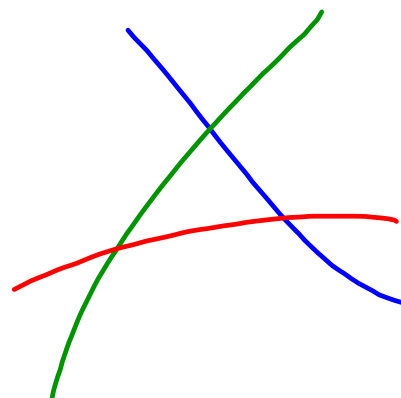
<i>written notes</i>		<i>graphing example</i>	
<i>graphing example</i>		<i>special cases</i>	

## 3-2 Solving Systems of Inequalities

*upper left corner*

- graph all inequalities
- intersection of shading are the solutions
- no intersection = no solution

graph 1  
break 1  
shade 1  
repeat!



Example 1: Solve by graphing.

$x < 5$  and  $x + y \leq 3$

$x = 5$

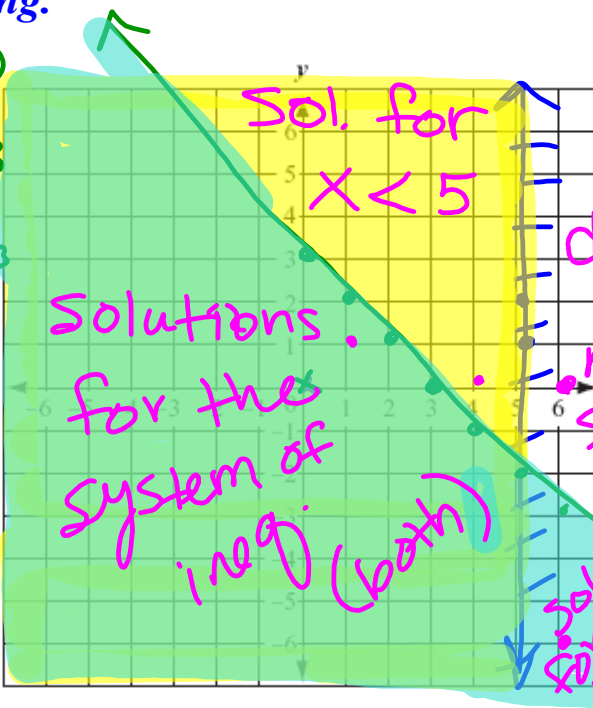
x	y
5	1
5	2
5	5

$(0, 0)$

$x + y = 3$

$y = -x + 3$

5 lines



Example 2: Solve by graphing.

$x = 5$   $0 = x$   $x > 0$

$y < 3$

$0 < x < 5$

$x < -y$   
 $x = -y$

$-x = y$

$y = -x$

$y = -1x + 0$

$1 < -1$

(F)

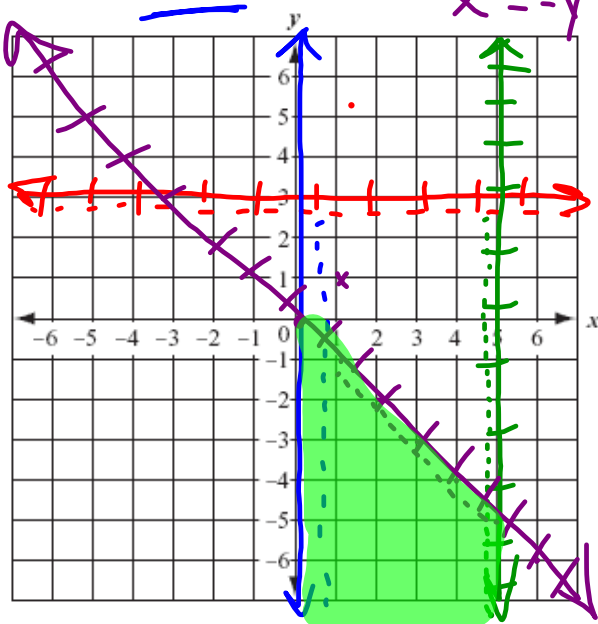
$y = 3$

$y < 2x + 3$

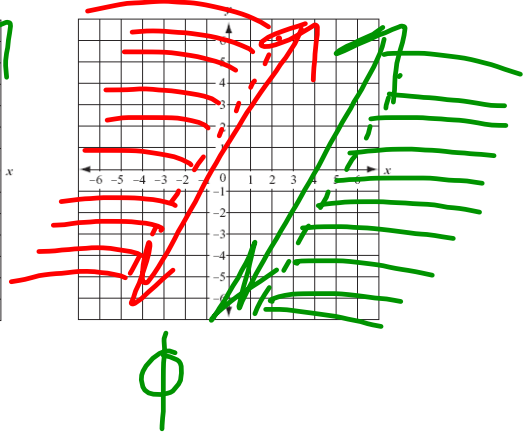
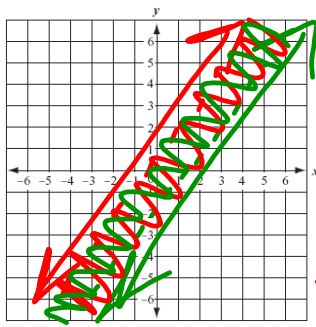
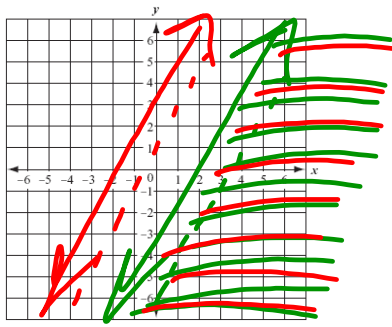
$y \geq x - 5$

$x + y < 3$

$x - y$



## Special Case Graphs: // lines



## 3-2 Worksheet

