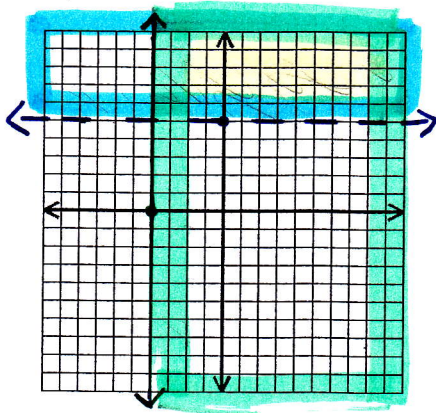


### 8.3 – Graphing Systems of Inequalities

Solve each system. Name 3 points in the solution.  
Name 3 points not in the solution.

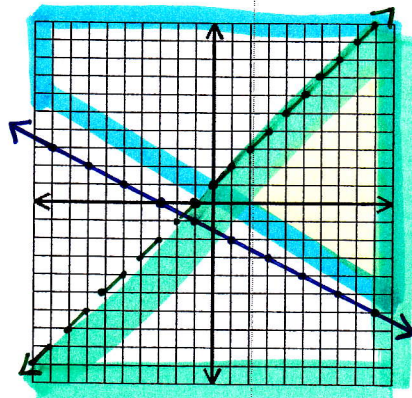
1.  $x > 5$     $y > 5$    **False**  
 $y \leq 4$     $y \leq 4$    **True**

Graph:  $x = 5$  (dashed)  
 Graph:  $y = 4$  (solid)



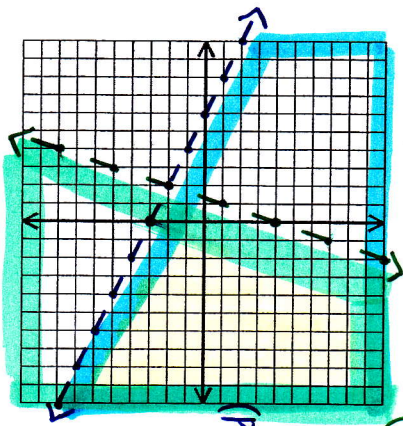
2.  $y \leq 2x + 3$     $y \leq 3$    **True**  
 $y < -x + 1$     $y < 1$    **True**

Graph:  $y = 2x + 3$  (solid)  
 Graph:  $y = -x + 1$  (dashed)



3.  $2y + x < 6$     $0 < 6$    **True**  
 $3x - y < 4$     $0 < 4$    **True**

Graph:  $2y + x = 6$   
 $2y = -x + 6$   
 $y = -\frac{1}{2}x + 3$  (dashed)  
 Graph:  $3x - y = 4$   
 $-y = -3x + 4$   
 $y = 3x - 4$  (dashed)



4.  $2x + y > 4$     $0 > 4$    **False**  
 $3x - y \leq 6$     $0 \leq 6$    **True**

Graph:  $2x + y = 4$   
 $y = -2x + 4$  (dashed)  
 Graph:  $3x - y = 6$   
 $-y = -3x + 6$   
 $y = 3x - 6$  (solid)

