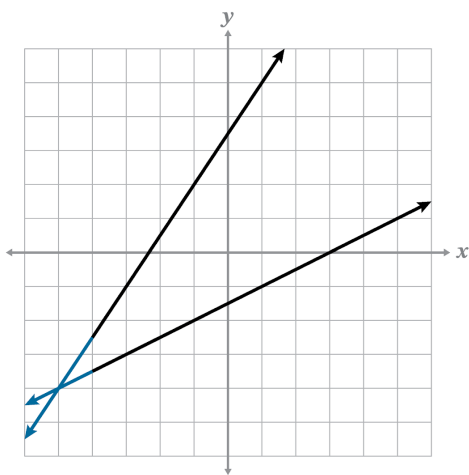
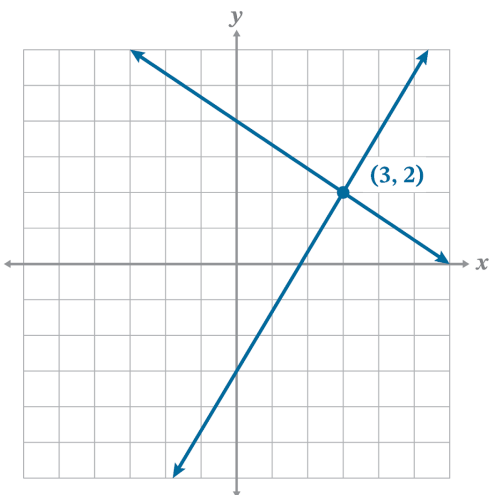


1.

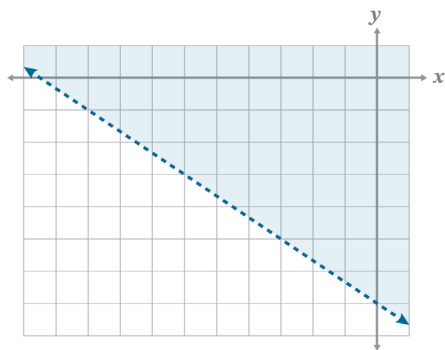


The solution is  $(-5, -4)$ . You can find the solution by *extending* the lines using the slopes,  $m = \frac{3}{2}$  for  $f(x)$  and  $m = \frac{1}{2}$  for  $g(x)$  into the third quadrant.

2.  $(3, 2)$



3.



4.

line  $f$  and line  $g$ : point  $P, (-1, 4)$

line  $f$  and line  $h$ : point  $Q, (2, 1)$

line  $g$  and line  $h$ : point  $R, (-4, -2)$

5.

$$y > x$$

$$y \leq -2x - 8$$

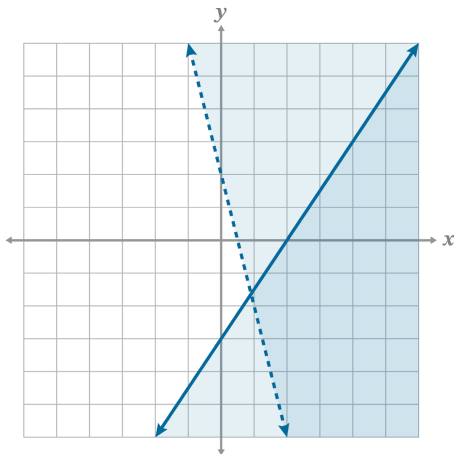
6.

The quadrants that contain the solution set are QII and QIII.

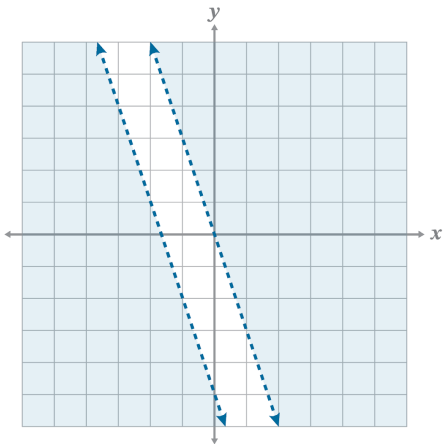
7.

Possible solutions include  $(-3, -2), (-4, 0), (-4, -1), (-4, -2), (-4, -3)$ , or any point in the overlapping shaded region.

8.



9.



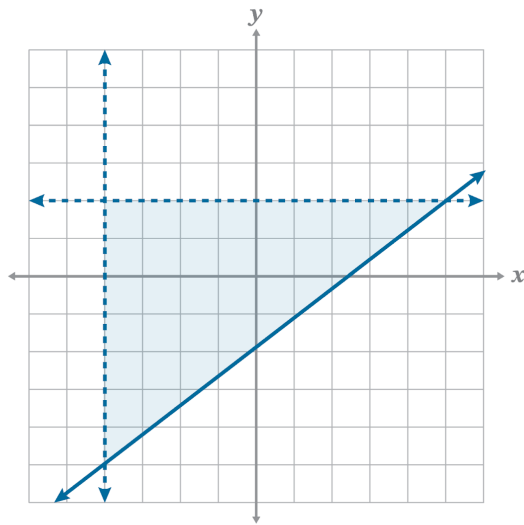
10.

The shaded region represents all possible solutions for the system. There are an infinite number of points in any shaded region of the graph so the only way to show all possible solutions is to shade because listing all solutions would be impossible.

11.

System:  $y = 1$ ,  $y = x - 5$ Solution:  $(6, 1)$ 

12.



The shape created by the system of inequalities is a (scalene, right) triangle.