

### Section 8.3 Focus Exercises

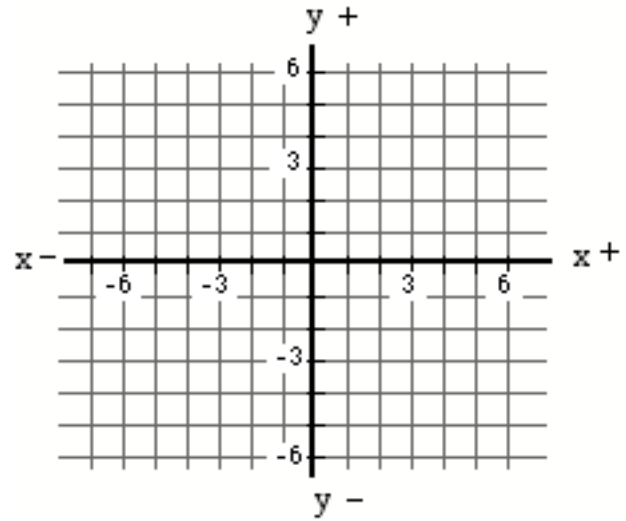
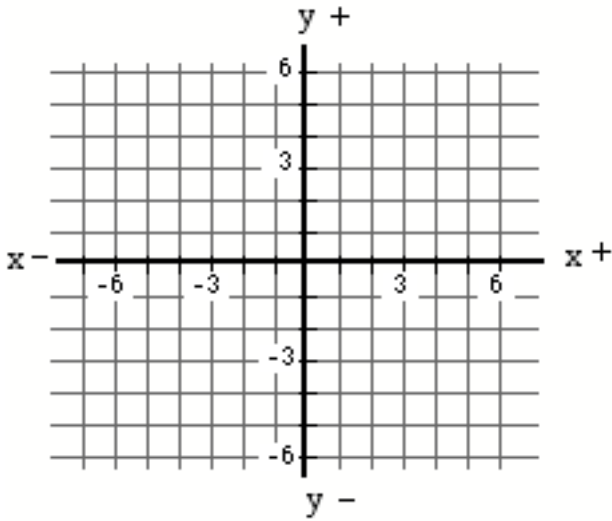
1. Given the point and a slope of a line, find (and label) two other points on the line and draw it. (Use each graph for two lines.) **Also**, Where do the two lines cross each other?

a) **A** (0, -4) and slope  $m = \frac{1}{4}$

c) **C** (3, -5) and slope  $m = -2$

b) **B** (2, 0) and slope  $m = -\frac{3}{2}$

d) **D** (-6, -1) and slope  $m = \frac{1}{3}$



The lines cross at (     ,     )

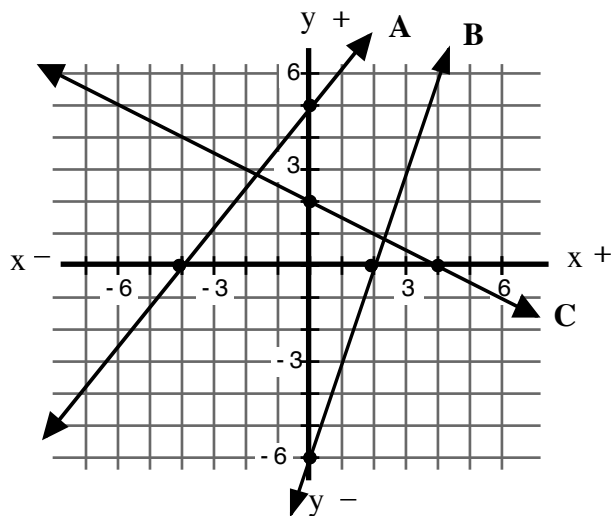
The lines cross at (     ,     )

2. Identify the x-intercept, the y-intercept and the slope of each line. Simplify the slope, if possible.

a) Line A: y-intercept (     ,     )  
 x-intercept (     ,     )  
 slope,  $m =$

b) Line B: y-intercept (     ,     )  
 x-intercept (     ,     )  
 slope,  $m =$

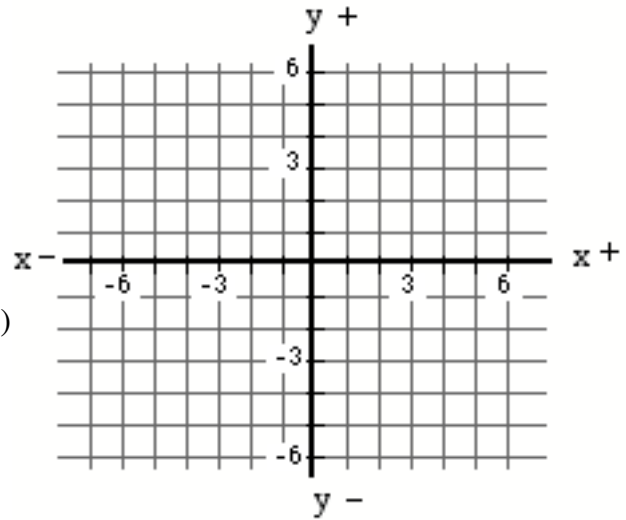
c) Line C: y-intercept (     ,     )  
 x-intercept (     ,     )  
 slope,  $m =$



3. Given the x-intercept and y-intercept of a line, plot the points, draw the line and find the slope. Simplify the slope, if possible.

a) x-intercept: (4, 0)      b) x-intercept: (2, 0)  
 y-intercept: (0, -5)      y-intercept: (0, 6)  
 slope  $m =$                       slope  $m =$

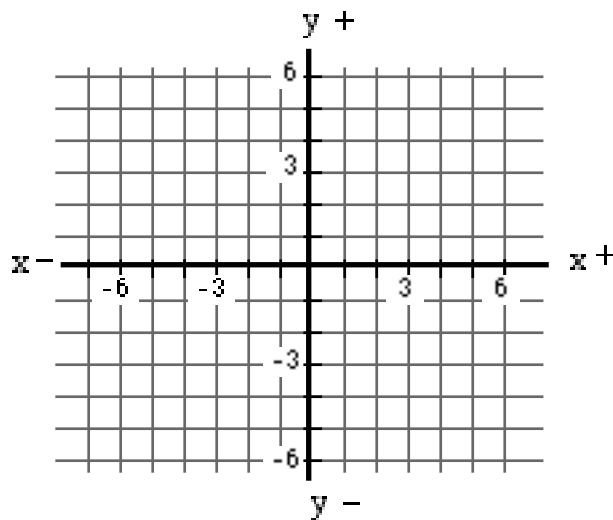
c) x-intercept: (-4, 0)      d) x-intercept: (-6, 0)  
 y-intercept: (0, -2)      y-intercept: (0, 3)  
 slope  $m =$                       slope  $m =$



4. Identify the slope and the y-intercept of the line. Then use them to graph the line. Identify the point where they cross.

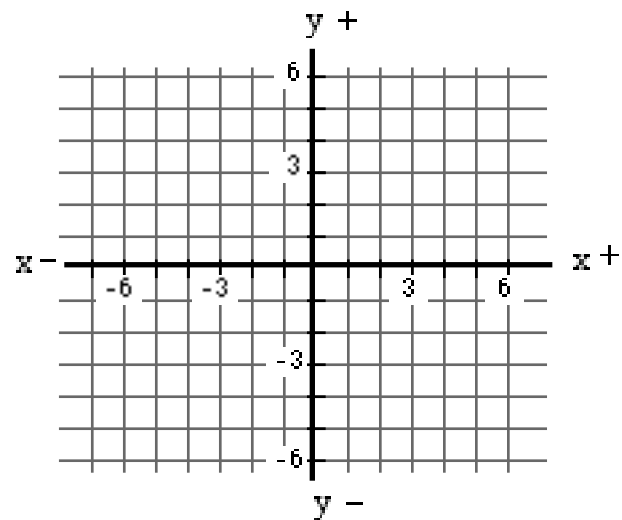
a)  $y = \frac{-1}{3}x + 4$       b)  $y = 3x - 6$       c)  $y = \frac{1}{2}x + 2$       d)  $y = -2x - 3$   
 m =                              m =                              m =                              m =  
 y-int:                              y-int:                              y-int:                              y-int:

Use this graph for (a) and (b)



The lines cross at (      ,      )

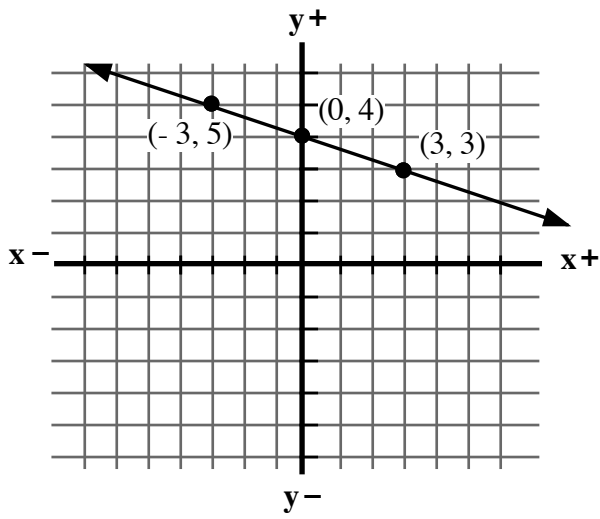
Use this graph for (c) and (d)



The lines cross at (      ,      )

5. Given the graph of the line, identify its slope and y-intercept, and use them to write the equation of the line.

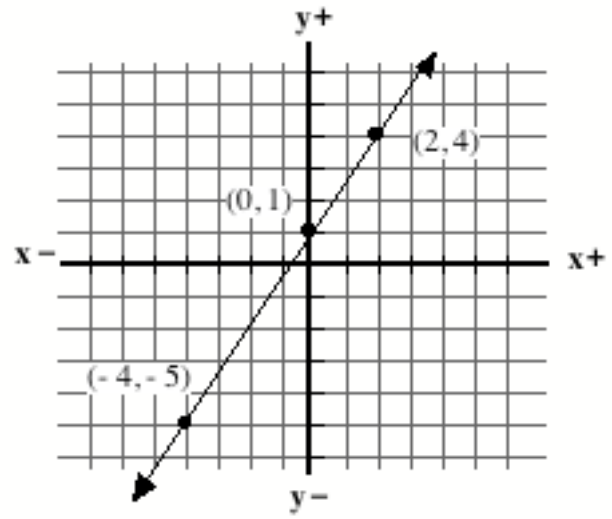
a)



$m =$                       y-int:

Equation of line:

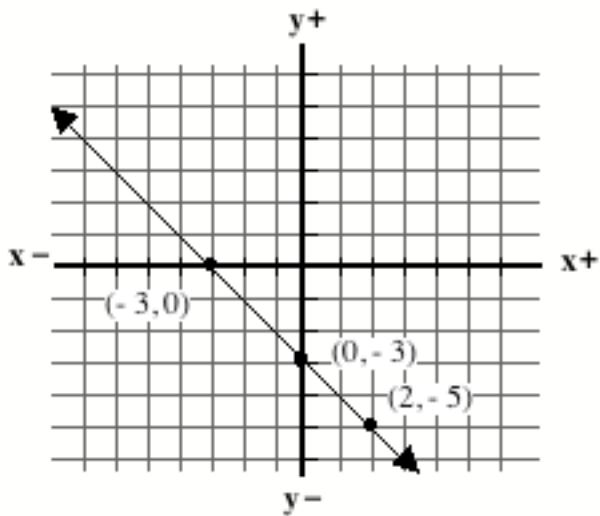
b)



$m =$                       y-int:

Equation of line:

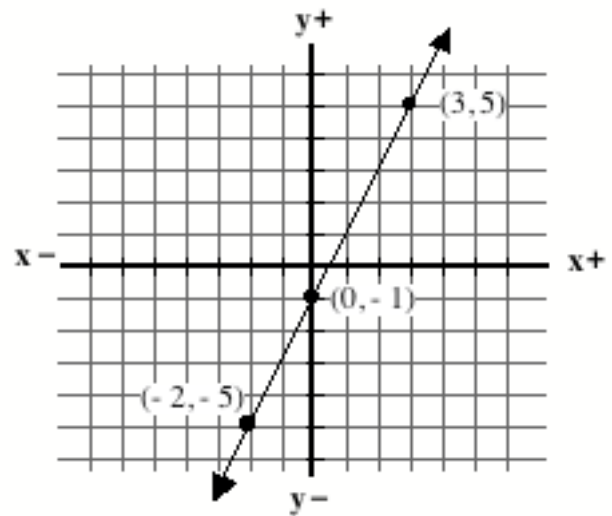
c)



$m =$                       y-int:

Equation of line:

d)



$m =$                       y-int:

Equation of line: