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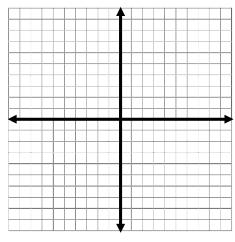
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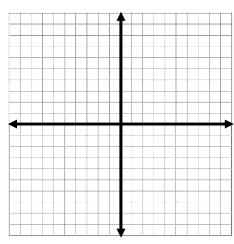
## Assignment 5A1: Systems of Equations of 2 Variables

Solve the system of equations by graphing, substitution, and elimination.

1. 
$$y = \frac{1}{2}x - 7$$
  
  $5x + 2y = 10$ 



2. 
$$y = (x + 1)^2$$
  
 $x + y = 1$ 



Solve the systems algebraically and check your answer graphically on a graphing app.

3. 
$$x = y + 3$$
,  $x - y^2 = 3y$ 

4. 
$$y = 2x^2 + x$$
,  $2x + y = 20$ 

5. 
$$y = x^3 + 3x^2$$
,  $y = -2x - 6$ 

Find the intersections (if any) of the circle and the given curve algebraically,. Then graph the two equations to verify your answer.

6. 
$$x^2 + y^2 = 9$$
  
 $y = x + 1$ 

7. 
$$x^2 + y^2 = 25$$
  
 $y = -2x + 3$ 

8. 
$$x^2 + y^2 = 4$$
  
 $y = -x + 8$ 

