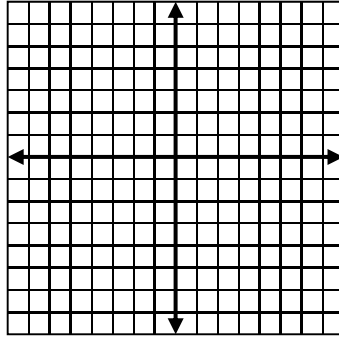


## Quadratics Systems Wksht #1

Directions: Make a sketch of each system and state how many solutions you believe there to be. Then, **using algebra**, solve the system and state exact solutions.

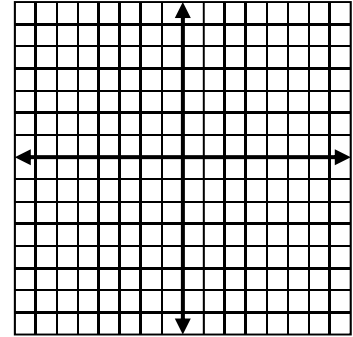
1. 
$$\begin{aligned} x^2 - y^2 &= 1 \\ x^2 + y^2 &= 5 \end{aligned}$$



# of solutions? \_\_\_\_\_

Exact solutions:

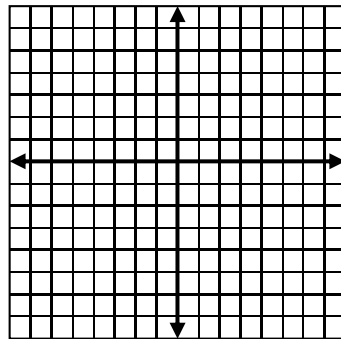
2. 
$$\begin{aligned} y &= x^2 \\ x^2 + y^2 &= 12 \end{aligned}$$



# of solutions? \_\_\_\_\_

Exact solutions:

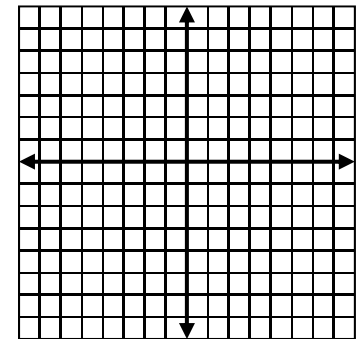
3. 
$$\begin{aligned} 2x^2 + y^2 &= 3 \\ y &= x^2 \end{aligned}$$



# of solutions? \_\_\_\_\_

Exact solutions:

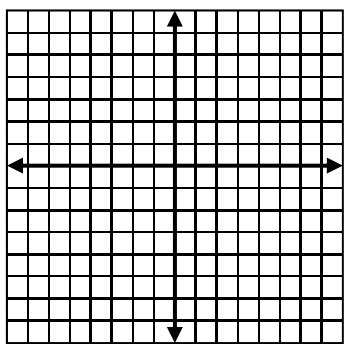
4. 
$$\begin{aligned} x^2 + 2y^2 &= 4 \\ 4x^2 - 9y^2 &= -36 \end{aligned}$$



# of solutions? \_\_\_\_\_

Exact solutions:

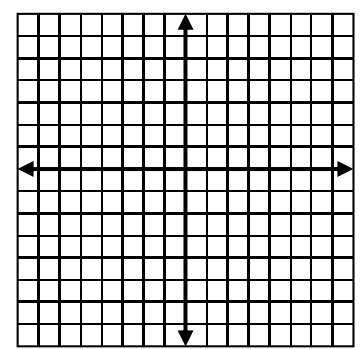
5.  $2x^2 = -y^2 + 18$   
 $2x^2 = y^2 + 10$



# of solutions? \_\_\_\_\_

Exact solutions:

6.  $x = y^2 - 2$   
 $x^2 - 4y^2 = 4$



# of solutions? \_\_\_\_\_

Exact solutions: