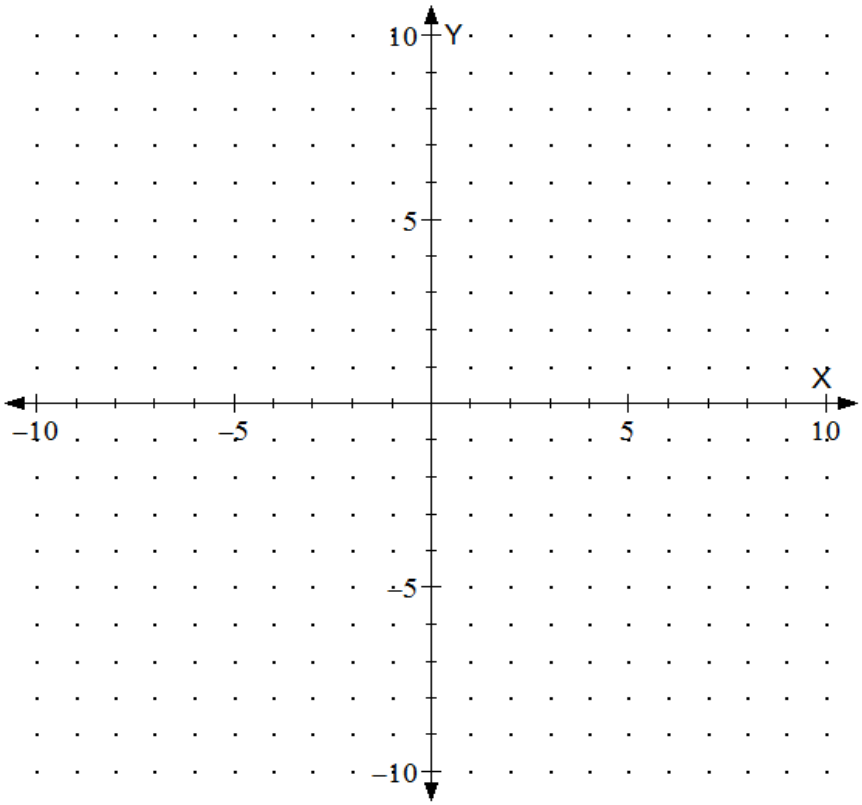
Intro to Graphing Equations – 2 Name _____

Directions: Use the equation to fill in the missing **x** or **y** values in the table. For each **x-y** data pair of an equation that fits on the coordinates provided, plot the point by drawing a heavy dot at location **(x, y).** After plotting the **x-y** data pairs for the equation **x + y = 6** below, use a ruler to draw a line segment through all of the **x-y** data points. The graphs of the other equations are parabolas which have a **U** shape graph that opens upward or downward. As best you can, draw a smooth curve through the plotted points of a parabola. On all graphs, draw an arrow tip at the start and end of the graph to indicate that the graph continues forever in both directions. Remember that it's only necessary to plot points that fit on the given **x-y** coordinate axes. As instructed by your teacher, label the graph of each equation.

$x + y = 6$
(Sun of x and y always equals 6.)

x	y
-20	26
-16	22
-8	
-6	
-4	
-2	
0	
2	
4	
6	
8	
500	
502	



$y = x^2 - 8$
(Square x, and then subtract 8)

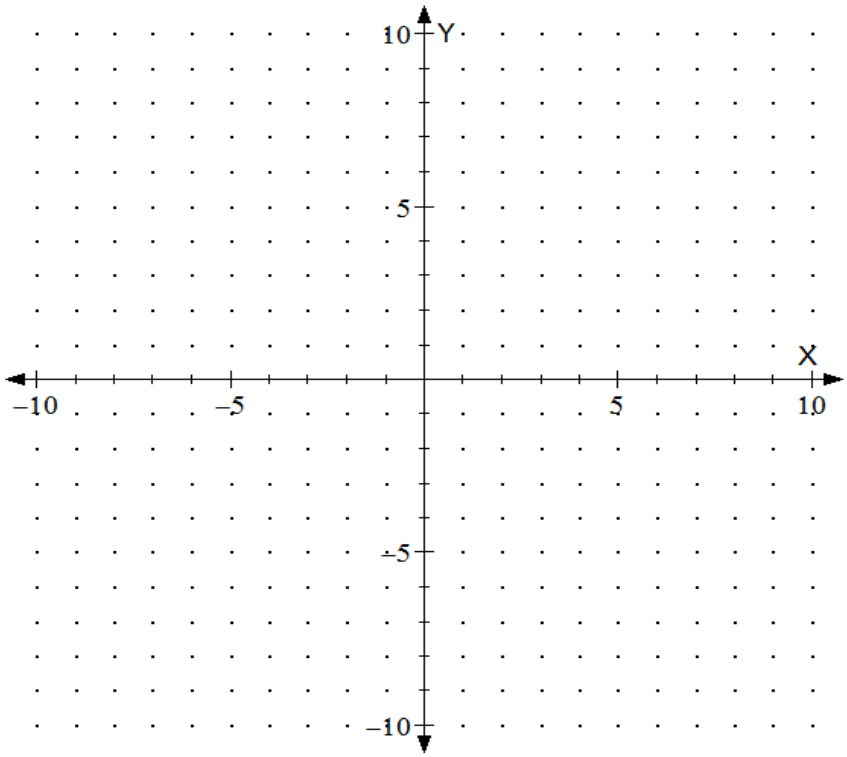
x	y
-20	392
-16	248
-5	
-4	
-3	
-2	
-1	
0	
1	
2	
3	
4	
5	

$y = -x^2 + 9$ (Square x, take the opposite, and then add 9)

x	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6
y	-27												

$y = (x - 4)(x + 2)$

x	y
-5	27
-4	16
-3	7
-2	
-1	
0	
1	
2	
3	
4	
5	
6	16



$y = (x + 5)^2 - 8$

x	y
-10	17
-9	
-8	
-7	
-6	
-5	
-4	
-3	
-2	
-1	
0	17
1	28

$y = (x - 6)^2 - 10$ (Subtract 6, square, and then subtract 10)

x	0	1	2	3	4	5	6	7	8	9	10	11
y	26											26

$y = -(x - 6)^2 + 10$ (Subtract 6, square, take the opposite, and then add 10)

x	0	1	2	3	4	5	6	7	8	9	10	11
y	-26											-26