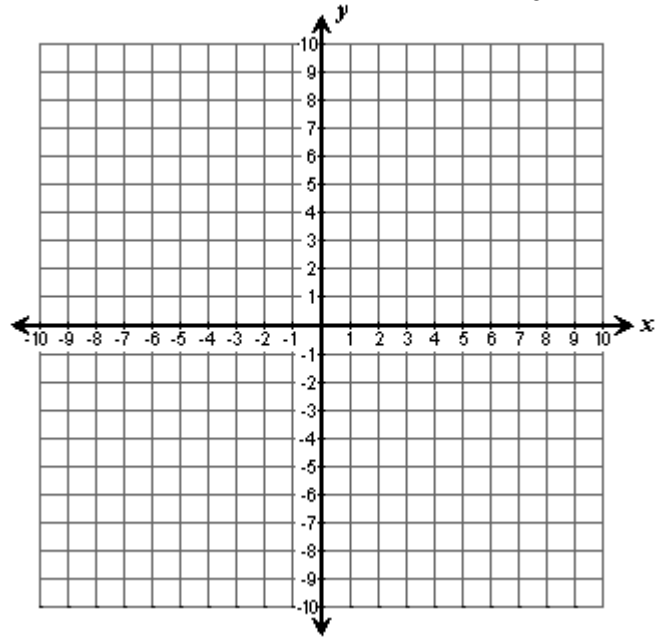


DRAWING PARABOLAS USING A TABLE OF VALUES

Drawing the graph of the simplest quadratic equation: $y = x^2$

To draw a parabola using a table of values, find 6 or 7 points so that a “ghostly outline” of points is visible. Draw the line between points as a smooth curve, rather than a straight line.

x	$y = x^2$	(x, y)



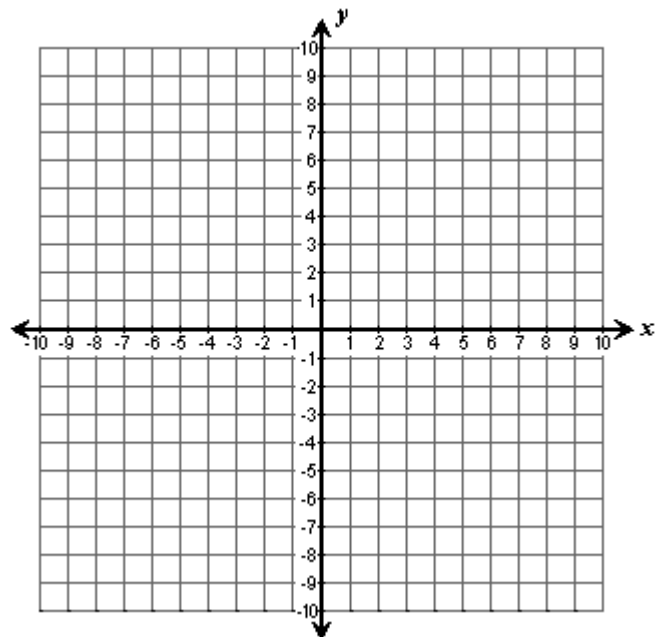
Location of x-intercept:

Location of y-intercept:

EXAMPLES

1. $y = -x^2 + 8$, x from -3 to 3

x	$y = -x^2 + 8$	(x, y)
-3	$-()^2 + 8 =$	
-2	$-()^2 + 8 =$	
-1	$-()^2 + 8 =$	
0	$-()^2 + 8 =$	
1	$-()^2 + 8 =$	
2	$-()^2 + 8 =$	
3	$-()^2 + 8 =$	

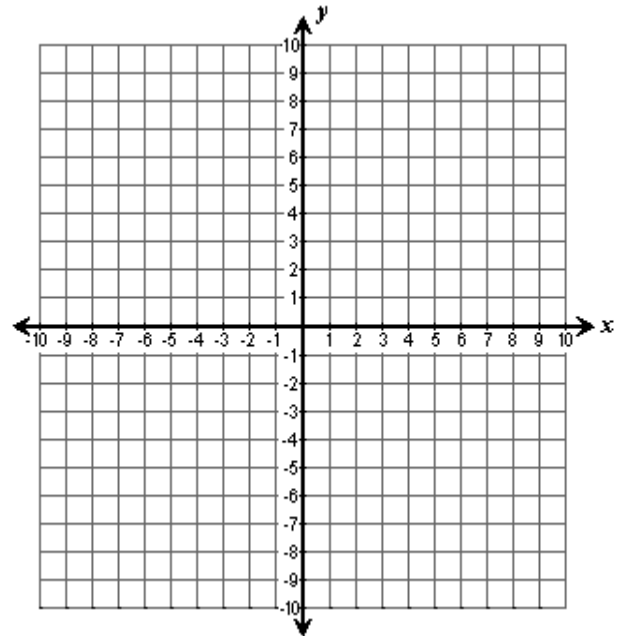


Location of x-intercept:

Location of y-intercept:

2. $y = x^2 - 2x - 8$, x from -3 to 3

x	$y = x^2 - 2x - 8$	(x, y)
-3	$(\quad)^2 - 2(\quad) - 8 =$	
-2	$(\quad)^2 - 2(\quad) - 8 =$	
-1	$(\quad)^2 - 2(\quad) - 8 =$	
0	$(\quad)^2 - 2(\quad) - 8 =$	
1	$(\quad)^2 - 2(\quad) - 8 =$	
2	$(\quad)^2 - 2(\quad) - 8 =$	
3	$(\quad)^2 - 2(\quad) - 8 =$	



Location of x-intercept:

Location of y-intercept:

Some Initial Observations About Quadratic Equations ($y = Ax^2 + Bx + C$)

What does the negative sign in front of the x^2 term do to the graph? (i.e., x^2 vs. $-x^2$)

What happens when there is a coefficient in front of the x term?

What happens when the equation has a constant term at the end? (i.e., the value of $C \neq 0$)