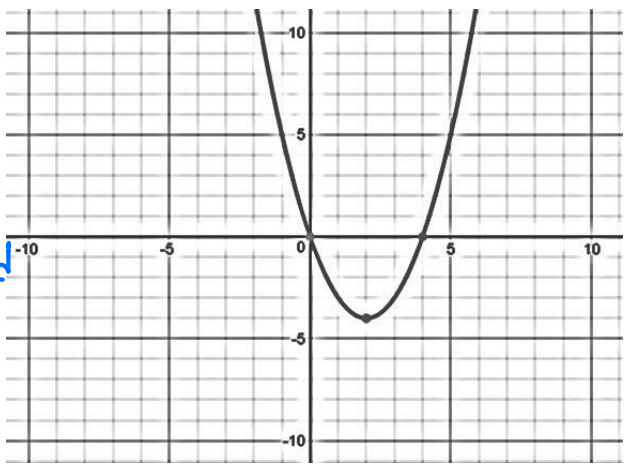
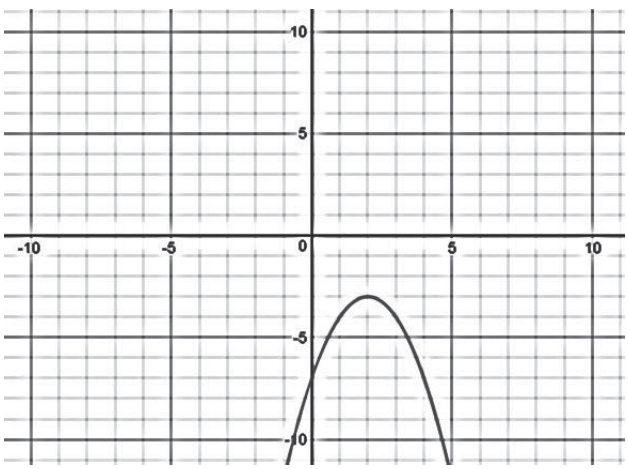
NAME: _____ PERIOD: _____ DATE: _____

Homework Problem Set

1. Give at least one reason the following two parabolas could be grouped together.





- same wideness
- Both shifted right 2 units

2. Give at least one reason the following two quadratic equations could be grouped together.

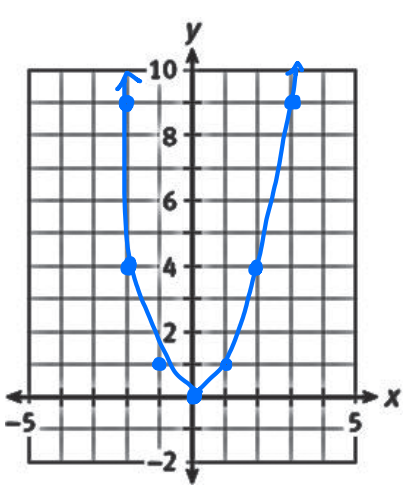
$y = -2(x - 1)^2 + 3$ $y = 3(x + 1)^2 + 2$

- Both have coefficients in front of parentheses
- Both shift up → something added after ( )

3. The parent graph, $y = x^2$, is the most basic quadratic there is. Complete the table for this function and graph the points on the grid at the right.

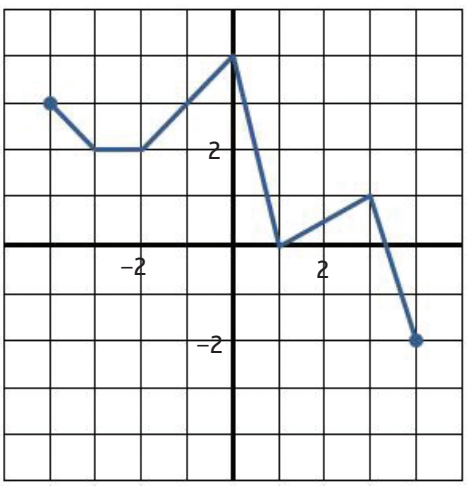
x	y
−3	9
−2	4
−1	1
0	0

x	y
1	1
2	4
3	9



Spiral REVIEW—Function Notation

Determine each of the following from the graph, table and equation.



x	$y = f(x)$
-4	-10
-3	5
-2	0
-1	1
0	1
1	2.5
2	-3
3	-7
4	8

$f(x) = 3x^2 + 2$

	From the Graph	From the Table	From the Equation
4.	A. $f(0) = 4$	B. $f(0) = 1$	C. $f(0) = 2$
5.	A. $f(3) = 1$	B. $f(3) = -7$	C. $f(3) = 29$
6.	A. $f(-3) = 2$	B. $f(-3) = 5$	C. $f(-3) = 29$
7.	A. $f\left(\frac{1}{2}\right) = 2$	B. $f\left(\frac{1}{2}\right) =$ NOT DEFINED	C. $f\left(\frac{1}{2}\right) = \frac{3}{4} + 2 = \frac{11}{4}$
8.	A. $f(5) =$ NOT DEFINED	B. $f(5) =$ NOT DEFINED	C. $f(5) = 77$