Algebra 1: 11.7 Classwork **Name** _____ **Period** _____
Translations of Quadratic Functions

1. Complete the table of values and graph each of the following 3 functions on the same coordinate grid.

   a. $f(x) = x^2$

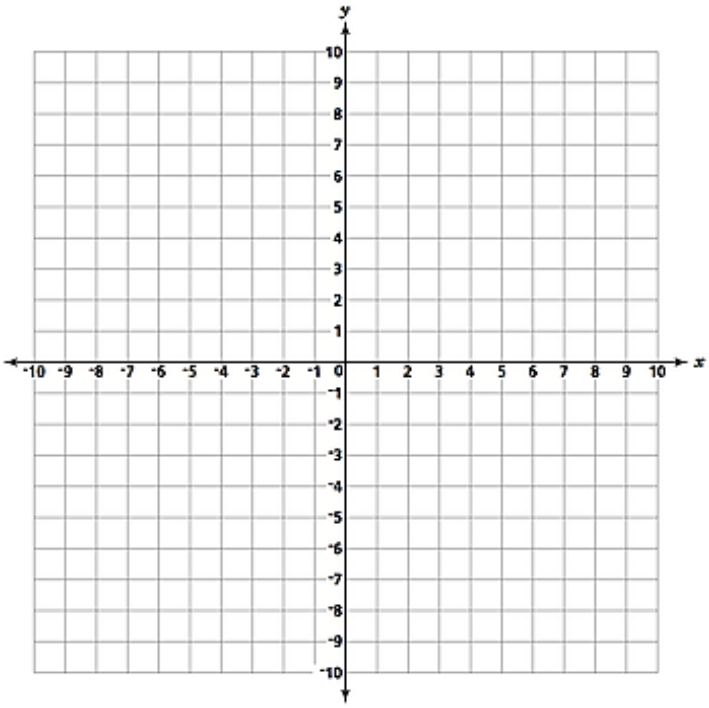
x	f(x)
-2	
-1	
0	
1	
2	

   b. $f(x) = x^2 + 2$

x	f(x)
-2	
-1	
0	
1	
2	

   c. $f(x) = x^2 - 2$

x	f(x)
-2	
-1	
0	
1	
2	



2. What changed about the graphs?

3. Complete the table of values and graph each of the following 3 functions on the same coordinate grid.

   a. $f(x) = x^2$

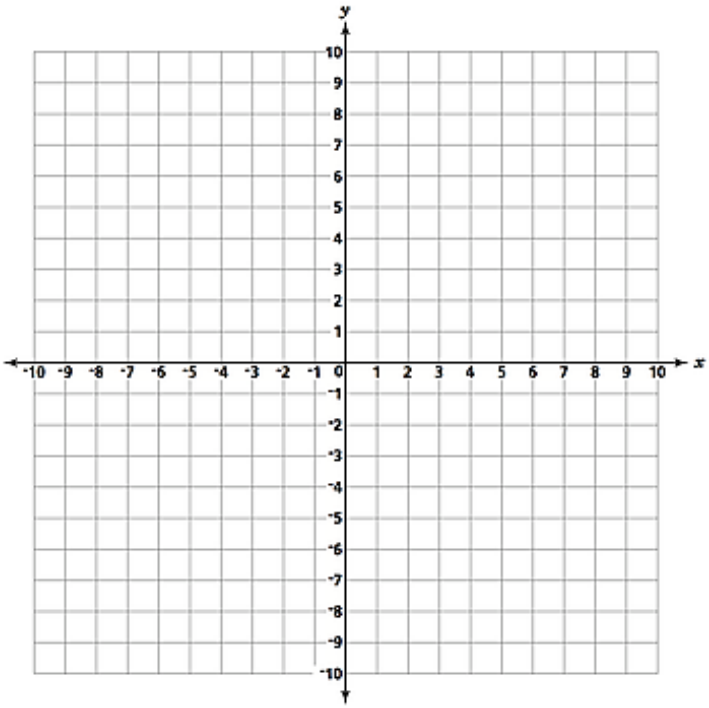
x	f(x)
-2	
-1	
0	
1	
2	

   b. $f(x) = (x+2)^2$

x	f(x)
-4	
-3	
-2	
-1	
0	

   c. $f(x) = (x-2)^2$

x	f(x)
0	
1	
2	
3	
4	



4. What changed about the graphs?

5. Complete the table of values and graph each of the following 3 functions on the same coordinate grid.

a. $f(x) = x^2$

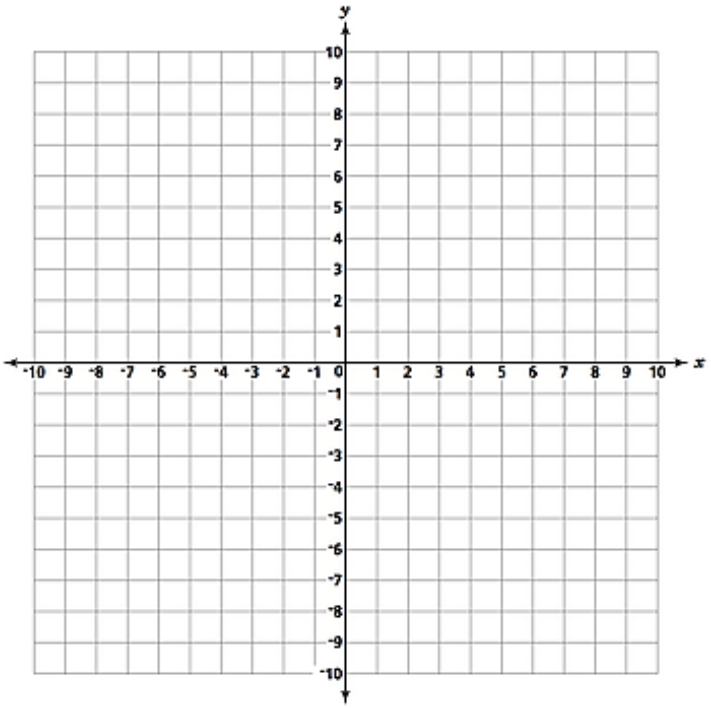
x	f(x)
-2	
-1	
0	
1	
2	

b. $f(x) = -x^2$

x	f(x)
-2	
-1	
0	
1	
2	

c. $f(x) = (-x)^2$

x	f(x)
-2	
-1	
0	
1	
2	



What changed about the graphs?

6. Complete the table of values and graph each of the following 3 functions on the same coordinate grid.

a. $f(x) = x^2$

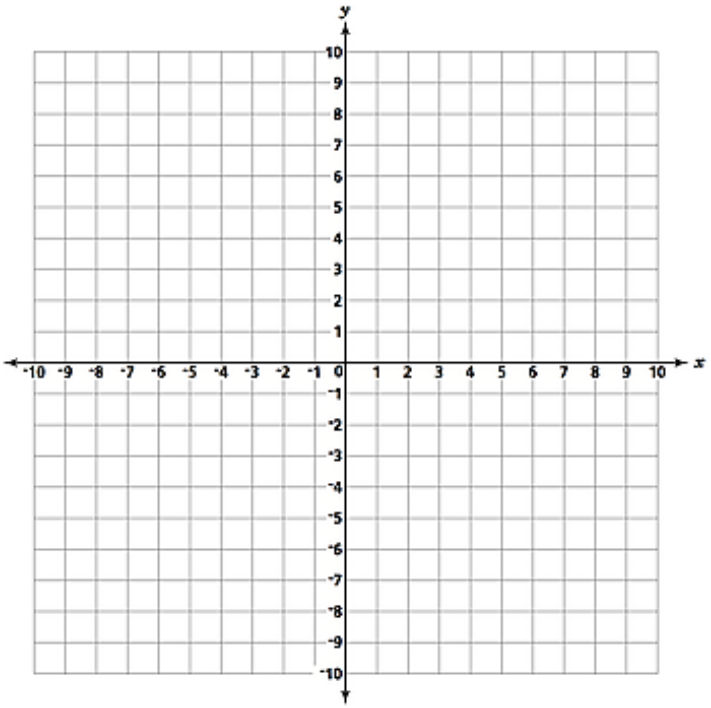
x	f(x)
-2	
-1	
0	
1	
2	

b. $f(x) = 2x^2$

x	f(x)
-2	
-1	
0	
1	
2	

c. $f(x) = \frac{1}{2}x^2$

x	f(x)
-4	
-2	
0	
2	
4	



What changed about the graphs?