

Mirror, Mirror!

Reflect and Apply

Recall that inverse functions are reflections of each other in the line $y = x$.

1. Graph $y = x^2 - 3$. Make a table.

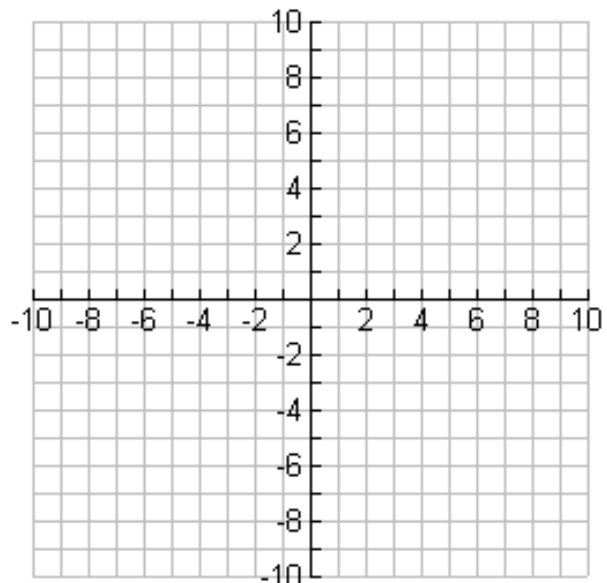
X	Y
0	
1	
2	
3	
4	

2. Take the numbers from your table and reverse the numbers to make a new table.

X	Y

3. Use your calculator with the numbers in the new table to make a scatter plot of the data. What type of equation will fit this new data?
4. Use guess and check to find an equation that will fit the curve. Write your equation below.

5. Sketch the graph of the two equations. Make sure you label each function with its equation.



6. Make up a quadratic function in the form $y = (x - h)^2 + k$. Write it below.

7. Fill in the table below using your equation.

x	y
0	
1	
2	
3	
4	

8. Make a new table by reversing the ordered pairs from the table in #7.

x	y

9. Use your calculator to make a scatter plot of the new data. Then, find an equation that will fit the curve. Write that equation below.

10. Sketch the graph of the two equations. Make sure you label each function with its equation.

