

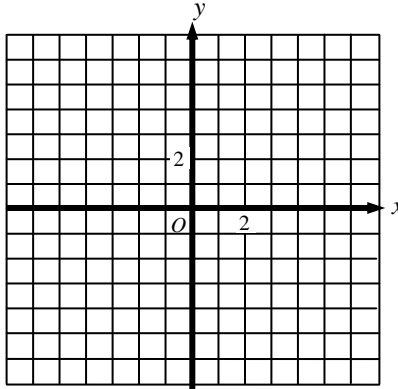
Quadratics - Day 4
Assignment

Name _____
Date _____ Per. _____

Generate a table and graph for each function. Then answer the questions that follow.

1. $y = 2x^2 - 1$

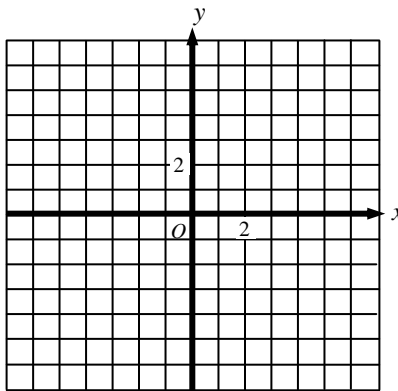
x	$y = 2x^2$
-2	
-1	
0	
1	
2	



- What is the vertex?
- Is it a maximum or minimum point?
- What are the roots of the function?
- What is the line of symmetry?
- How does the graph of this function compare to the parent function of $y = x^2$?

2. $y = -\frac{1}{2}x^2$

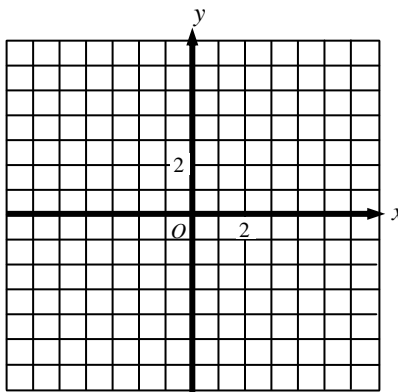
x	$y = -\frac{1}{2}x^2$
-2	
-1	
0	
1	
2	



- What is the vertex?
- Is it a maximum or minimum point?
- What are the roots of the function?
- What is the line of symmetry?
- How does the graph of this function compare to the parent function of $y = x^2$?

3. $y = -x^2 + 4$

x	$y = -x^2 + 4$
-2	
-1	
0	
1	
2	

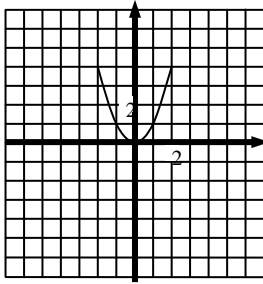


- What is the vertex?
- Is it a maximum or minimum point?
- What are the roots of the function?
- What is the line of symmetry?
- How does the graph of this function compare to the parent function of $y = x^2$?

Quadratics - Day 4
Assignment

Name _____
Date _____ Per. _____

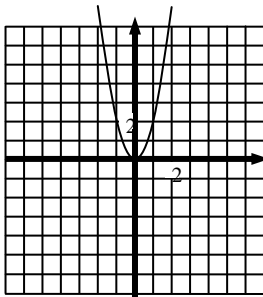
4. The graph of $y = x^2$ is shown below.



Draw a graph to represent $y = x^2$ translated 5 units up and write its equation.

Equation _____

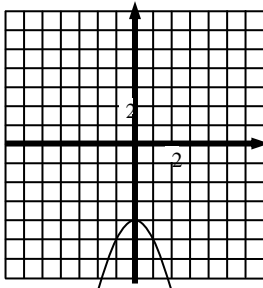
5. The graph of $y = 2x^2$ is shown below.



Draw a graph to represent $y = 2x^2$ translated 3 units down and reflected and write its equation.

Equation _____

6. The graph of $y = -x^2 - 4$ is shown below.



Draw a graph to represent $y = -x^2 - 4$ when it is transformed to $\frac{1}{2}x^2 + 3$. List the transformations.

Transformations:

7. Write an equations for a parabola that will open upward and be wider than the graph of $y = x^2$?
8. Write an equation that describes the quadratic parent function after it has been reflected across the x-axis and shift two units down?
9. Write an equation for a parabola that would be narrower than $y = x^2$.