

NAME _____

DATE _____

PER. _____

RETEST REVIEW: QUADRATIC FUNCTIONS – PART 2

Match each graph to its corresponding equation.

- _____ 1. $y = x^2$
- _____ 2. $y = x^2 + 3$
- _____ 3. $y = (x - 2)^2 + 1$
- _____ 4. $y = -3x^2$
- _____ 5. $y = -x^2$
- _____ 6. $y = (x + 2)^2 + 1$
- _____ 7. $y = \frac{1}{2}x^2$
- _____ 8. $y = 2x^2 - 3$

Answer the following.

9. What is the domain and range of Graph F?

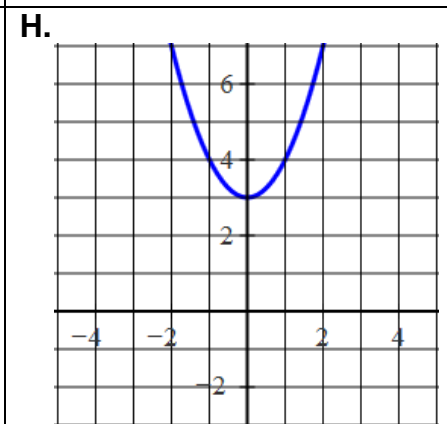
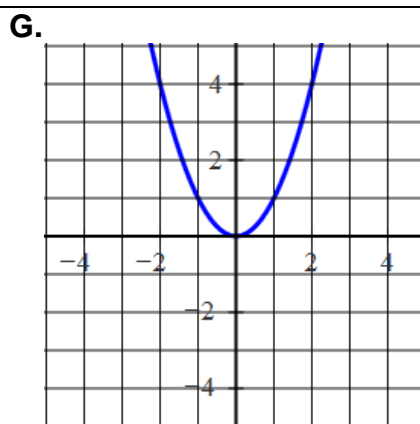
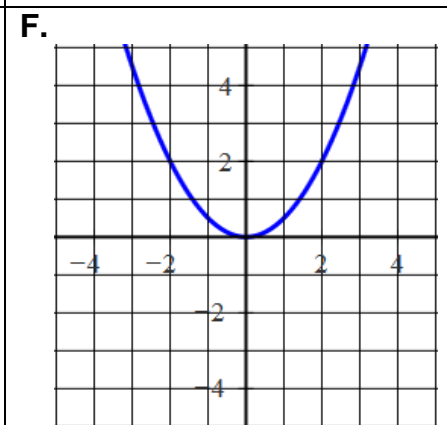
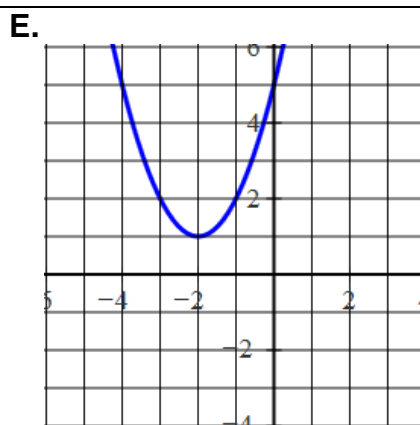
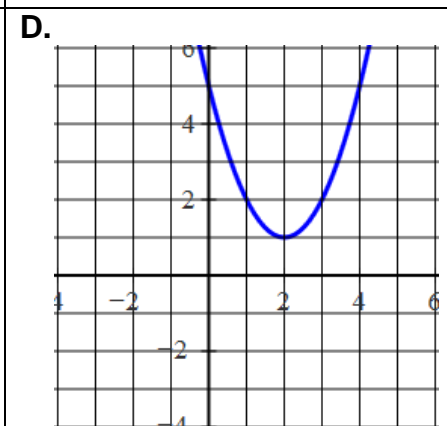
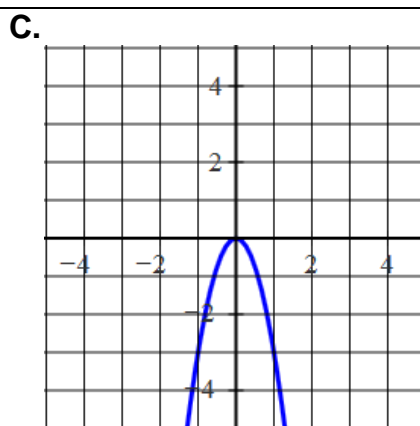
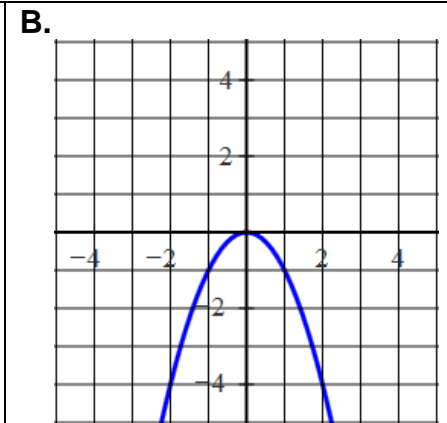
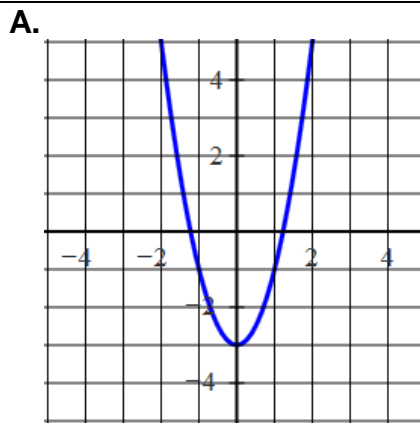
D: _____

R: _____

10. What is the vertex and axis of symmetry of Graph D?

Vertex: _____

Axis of Symmetry: _____



Answer the following.

If the graph of the quadratic parent function is stretched by a factor 2, shifted 2 units up, and 6 units to the right, write the equation that could represent the transformed graph.

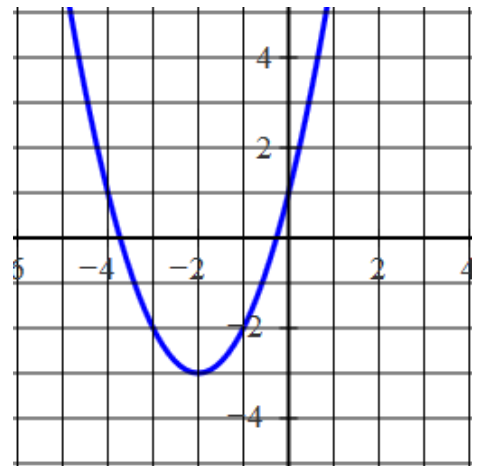
The quadratic parent function is compressed by a factor of 4, reflected across the x-axis, and shifted down 12 units. Write an equation that represents the transformed function.

Describe the steps that transformed the parent function $y = x^2$ into the following function:
 $f(x) = (x + 4)^2 + 6$

What is the vertex of the new function?

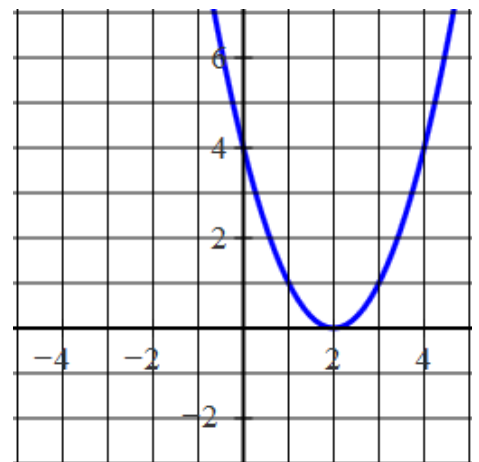
_____ 13. Which function matches the graph shown?

- A. $f(x) = (x - 3)^2 + 2$
- B. $f(x) = (x - 2)^2 + 2$
- C. $f(x) = (x + 3)^2 - 2$
- D. $f(x) = (x + 2)^2 - 3$



_____ 14. Which function matches the graph shown?

- A. $f(x) = -(x - 2)^2$
- B. $f(x) = -(x + 2)^2$
- C. $f(x) = (x - 2)^2$
- D. $f(x) = (x + 2)^2$



15. Circle the transformations that apply:

Compared to the graph of the parent function $y = x^2$ the graph of $f(x) = -3x^2 - 3$ is:

Stretched

Shifted right

Shifted up

Compressed

Shifted left

Shifted down

Reflected across x-axis

16. Circle the transformations that apply:

Compared to the graph of the parent function $y = x^2$ the graph of $f(x) = (x + 4)^2 + 2$ is:

Stretched

Shifted right

Shifted up

Compressed

Shifted left

Shifted down

Reflected across x-axis

17. Circle the transformations that apply:

Compared to the graph of the parent function $y = x^2$ the graph of $f(x) = -(x - 4)^2$ is:

Stretched

Shifted right

Shifted up

Compressed

Shifted left

Shifted down

Reflected across x-axis