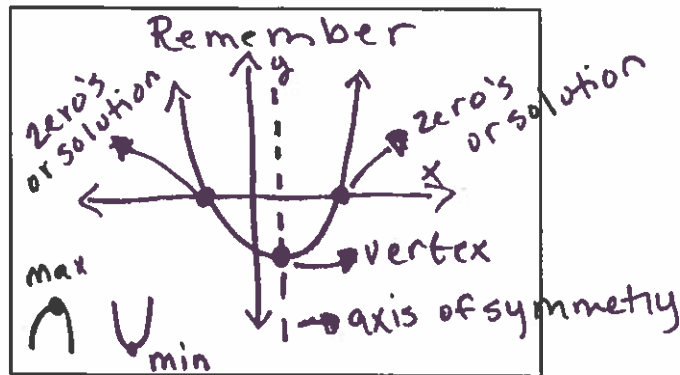
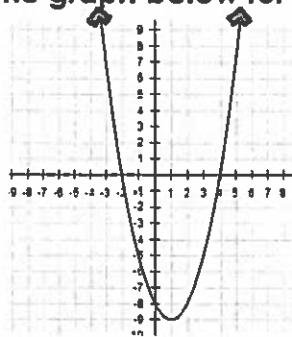


## Quadratic Test Review



Use the graph below for #1-6.



1. Is the graph quadratic, linear, or neither?

2. What is the vertex?

Is it a maximum or minimum?

3. What is the domain?

4. What is the range?

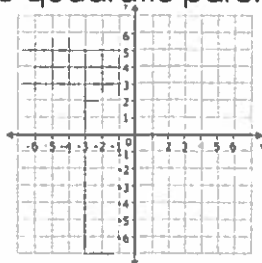
5. What is the axis of symmetry?

- A.  $x = -9$       C.  $y = 1$   
B.  $x = 1$       D.  $y = -9$

6. What are the roots?

7. What is the quadratic parent function equation?

8. Graph the quadratic parent function.



Use the equation  $y = -x^2 + 2x + 3$  to answer #9- 13.

9. What are the zeros?

- A.  $\{1, 3\}$       B.  $\{-1, 3\}$   
C.  $\{0, 0\}$       D.  $\{-1, -3\}$

10. What is the vertex?

11. What is the axis of symmetry?

12. What is the domain?

13. What is the range?

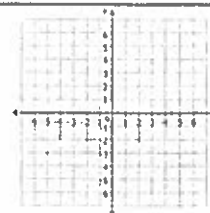
14. What are the solutions to quadratic function below?

X	0	1	2	3	4	5	6
Y	6	0	-4	-6	-6	-4	0

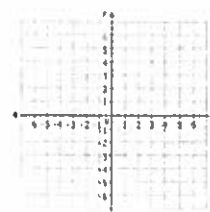
15. What are the x intercepts of the quadratic function below?

$$y = (x + 8)^2$$

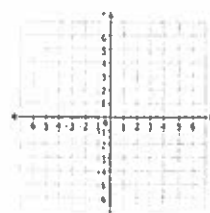
16. Sketch a parabola with two solutions.



17. Sketch a graph with no solutions.



18. Sketch a graph with one solution.

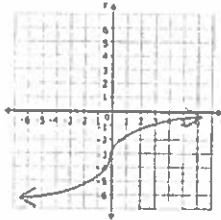


Identify if the following are linear, quadratic, or neither for #19-22.

19.

X	-6	-5	-4	-3	-2	-1	0
Y	7	5	3	1	-1	-3	-5

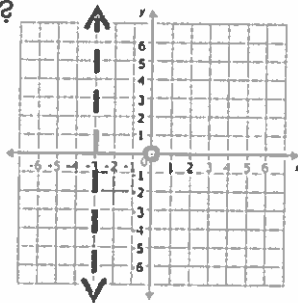
20.



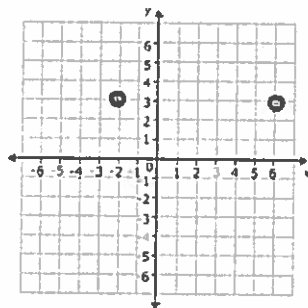
21.  $y = x^3 + 2$

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

23. If the axis of symmetry is  $x = -3$  and an x intercept is 0, what are the solutions to the quadratic graph?



24. If the following two points are on a parabola, what is the axis of symmetry?



25. Describe the transformation from the quadratic parent function to  $y = \frac{2}{3}x^2 - 2$ .

26. If  $y = x^2$  is changed to  $y = -x^2 + 6$ , describe the transformations.

27. If  $f(x) = x^2 + 2$  is transformed to create the quadratic function  $g(x) = 3x^2 - 4$ , what transformations took place?

28. If the graph of  $y = \frac{1}{5}x^2 + 4$  is made narrower and translated down three units, which of the following is a possible equation for the new graph?

A.  $y = 2x^2 + 7$

C.  $y = \frac{1}{5}x^2 + 1$

B.  $y = 2x^2 + 1$

D.  $y = x^2 + 7$

29. If the graph  $y = -3x^2$  is transformed so it opens up and is wider, which of the following is a possible equation for the new graph?

A.  $y = -x^2$

C.  $y = 3x^2$

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

D.  $y = 5x^2$

30. If the -5 in  $y = -x^2 - 5$  is changed to a positive number, what is the effect on the graph?

A. The graph gets wider

B. The graph gets narrower.

C. The graph translates up.

D. The graph is reflected.