

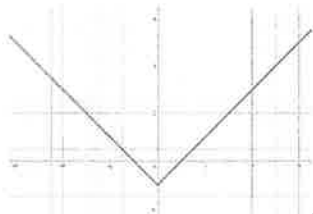
Algebra 2  
Quiz 1.1-1.2

NAME KEY

Write the letter for the best answer.

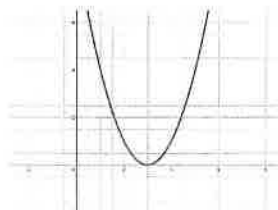
Identify the function family to which  $f$  belongs such as: Linear(L), Absolute Value(A), or Quadratic(Q). Then identify the domain and range. (1 Point)

1.



- A. A,  $D=(x < -1)$ ,  $R=(\mathbb{R})$  **B. A,  $D=(\mathbb{R})$ ,  $R=(y > -1)$**   
C. A,  $D=(x > -1)$ ,  $R=(\mathbb{R})$  D. A,  $D=(\mathbb{R})$ ,  $R=(y < -1)$

2.

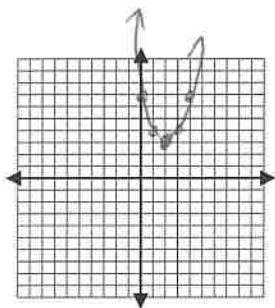


- A. Q,  $D=(\mathbb{R})$ ,  $R=(y > 0)$**  B. Q,  $D=(\mathbb{R})$ ,  $R=(y > 3)$   
C. Q,  $D=(\mathbb{R})$ ,  $R=(y < 0)$  D. Q,  $D=(\mathbb{R})$ ,  $R=(y < 3)$

Graph the function and then describe the transformation. (2 Points)

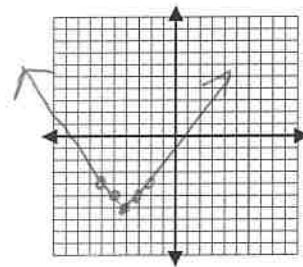
3.  $y = (x - 2)^2 + 3$

- A. 2 units left, 3 up  
**B. 2 units right, 3 up**  
C. 3 units left, 2 up  
D. 3 units left, 2 up



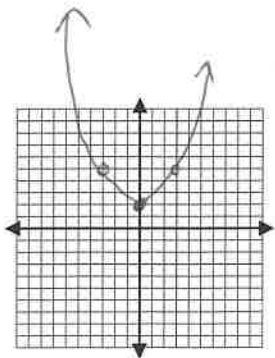
4.  $y = |x + 4| - 6$

- A. 4 units left, 6 down**  
B. 4 units right, 6 down  
C. 6 units left, 4 up  
D. 6 units right, 4 down



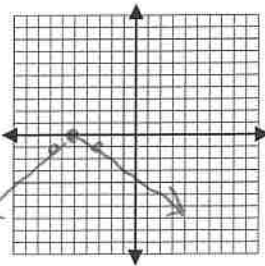
5.  $y = \frac{1}{3}x^2 + 2$

- A. 2 units down, stretch  
B. 2 units down, shrink  
C. 2 units up, stretch  
**D. 2 units up, shrink**



6.  $y = -\frac{1}{2}|x + 5|$

- A. 5 units right, stretch, reflection  
B. 5 units right, shrink reflection  
C. 5 units left, stretch, reflection  
**D. 5 units left, shrink, reflection**



Write a function  $g$  whose graph represents the indicated transformation of the graph of  $f$ . (1 Point)

7.  $f(x) = |x + 3|$ , translated 4 down

8.  $f(x) = (x - 2)^2 - 1$ , translated 4 left

A.  $g(x) = |x + 7|$

B.  $g(x) = |x - 1|$

A.  $g(x) = (x - 6)^2 - 1$

B.  $g(x) = (x - 2)^2 - 5$

C.  $g(x) = |x + 3| - 4$

D.  $g(x) = |x + 7| + 3$

C.  $g(x) = (x + 2)^2 - 1$

D.  $g(x) = (x - 2)^2 + 3$

9.  $f(x) = |x + 6| - 7$ , translated 3 down, vertical stretch of 4

A.  $g(x) = 4|x + 3| - 10$

B.  $g(x) = \frac{1}{4}|x + 3| - 10$

C.  $g(x) = 4|x + 6| - 40$

D.  $g(x) = \frac{1}{4}|x + 6| - 40$

$|x+6| - 7$

$|x+6| - 10$

$4[|x+6| - 10]$

$4|x+6| - 40$

10.  $f(x) = (x + 3)^2 + 5$ , translated 4 up, vertical shrink of  $\frac{1}{3}$ , reflection

A.  $g(x) = -3(x + 3)^2 + 9$

B.  $g(x) = -3(x + 3)^2 + 3$

C.  $g(x) = -\frac{1}{3}(x + 3)^2 + 9$

D.  $g(x) = -\frac{1}{3}(x + 3)^2 - 3$

$(x+3)^2 + 5$

$(x+3)^2 + 9$

$\frac{1}{3}[(x+3)^2 + 9]$

$\frac{1}{3}(x+3)^2 + 3$

$-\left[\frac{1}{3}(x+3)^2 + 3\right]$

$-\frac{1}{3}(x+3)^2 - 3$