Name: _____ **Class:** _____ **Date:** _____ **ID: A**

Function Families

Multiple Choice
Identify the choice that best completes the statement or answers the question.

What is the graph of the absolute value equation?

____ 1. Which of the following describes the translation of $y = |x|$ to $y = |x + 7| - 2$?

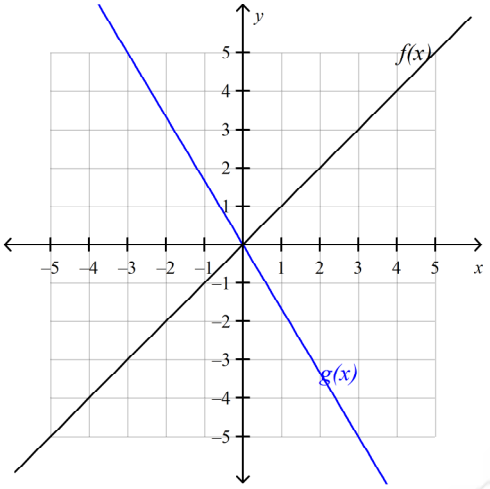
a. $y = |x|$ translated 7 units to the right and 7 units down
b. $y = |x|$ translated 7 units to the left and 2 units down
c. $y = |x|$ translated 2 units to the left and 7 units down
d. $y = |x|$ translated 2 units to the right and 7 units up

Name: _____ **ID: A**

Graph the function and its parent function. Then describe the transformation.

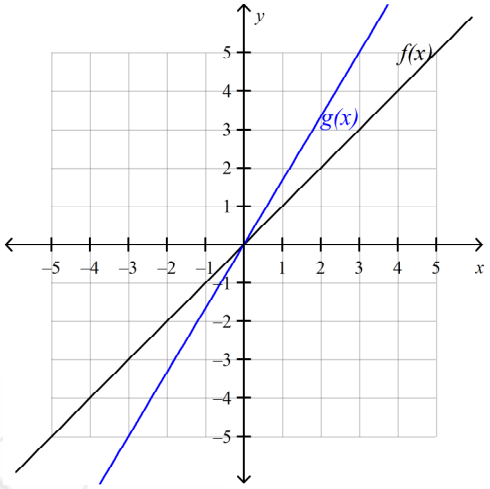
____ 2. $g(x) = \frac{5}{3}x$

a.



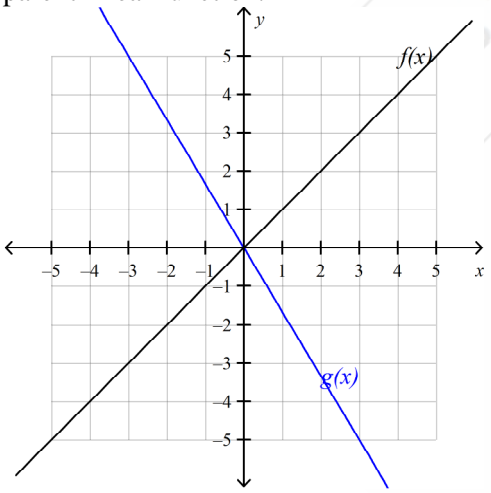
The graph of g is a vertical shrink and a reflection in the x-axis of the parent linear function.

c.



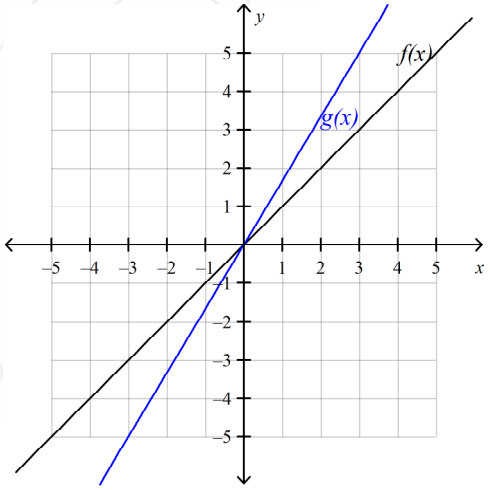
The graph of g is a vertical shrink of the parent linear function.

b.



The graph of g is a vertical stretch and a reflection in the x-axis of the parent linear function.

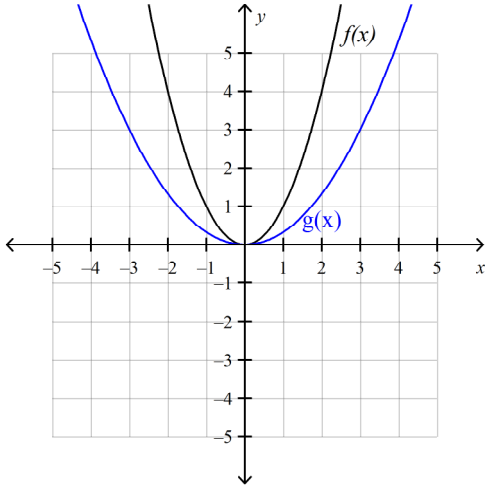
d.



The graph of g is a vertical stretch of the parent linear function.

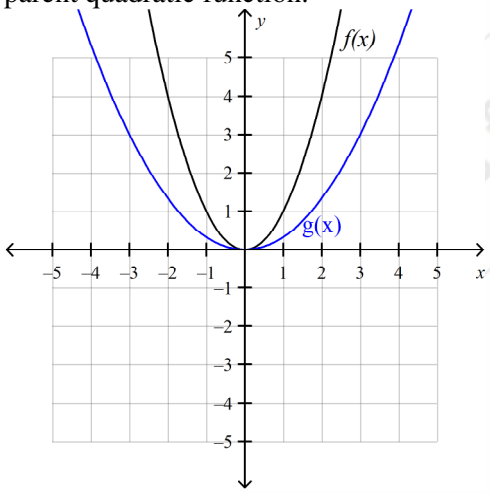
____ 3. $g(x) = 3x^2$

a.



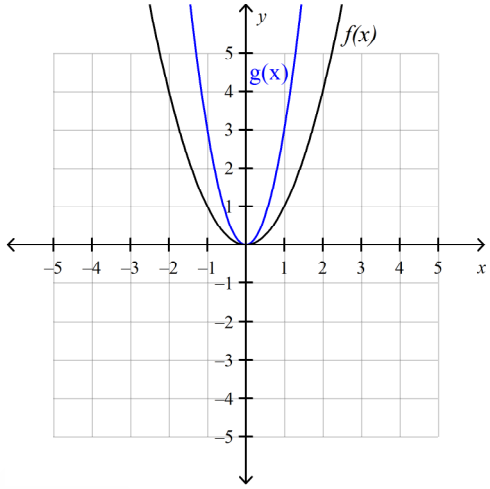
The graph of g is a vertical stretch of the parent quadratic function.

b.



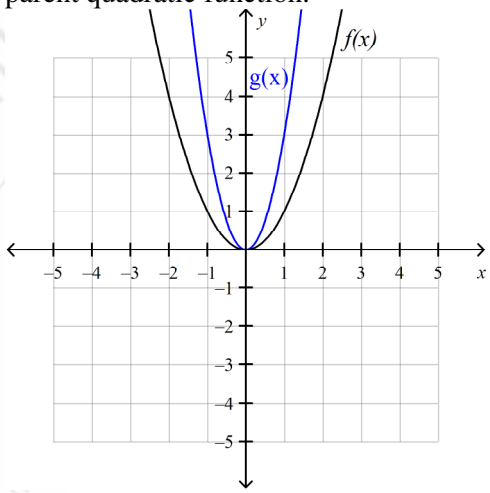
The graph of g is a vertical shrink of the parent quadratic function.

c.



The graph of g is a vertical stretch of the parent quadratic function.

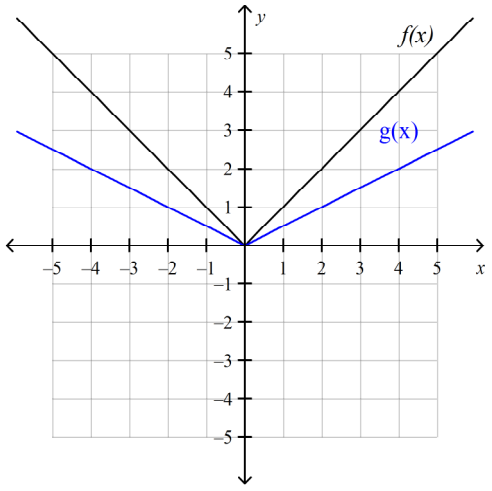
d.



The graph of g is a vertical shrink of the parent quadratic function.

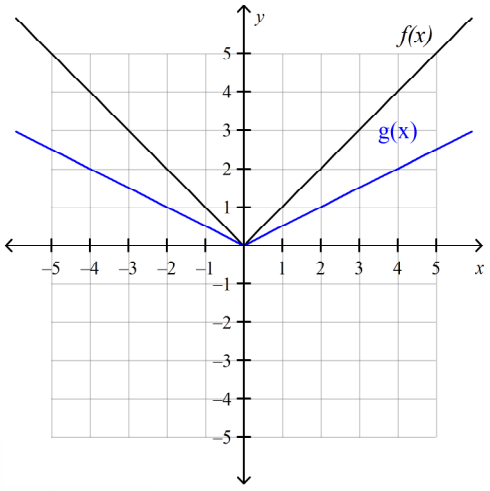
____ 4. $g(x) = \frac{1}{2}|x|$

a.



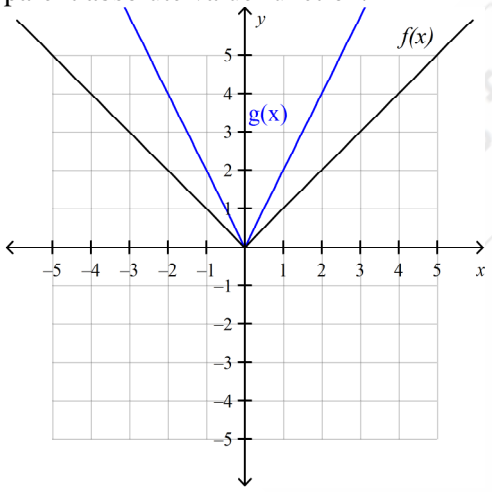
The graph of g is a vertical stretch of the parent absolute value function.

c.



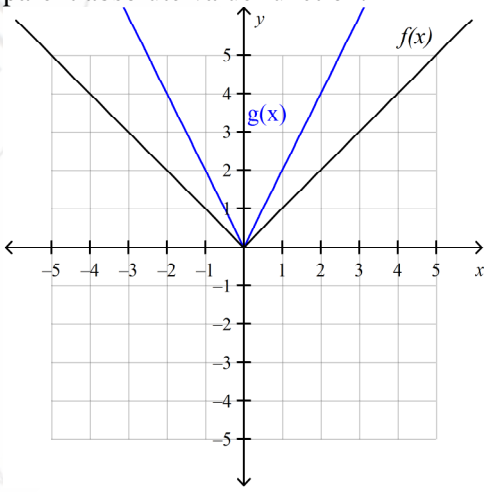
The graph of g is a vertical shrink of the parent absolute value function.

b.



The graph of g is a vertical shrink of the parent absolute value function.

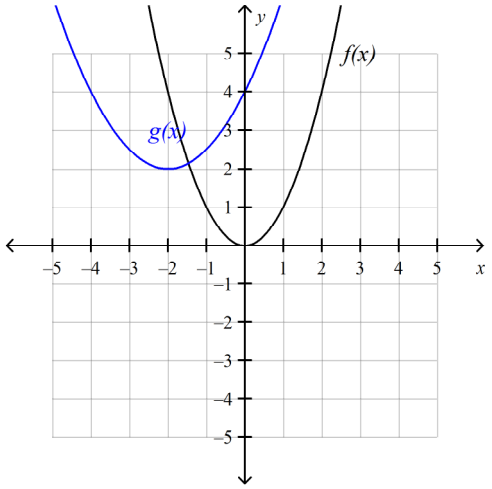
d.



The graph of g is a vertical stretch of the parent absolute value function.

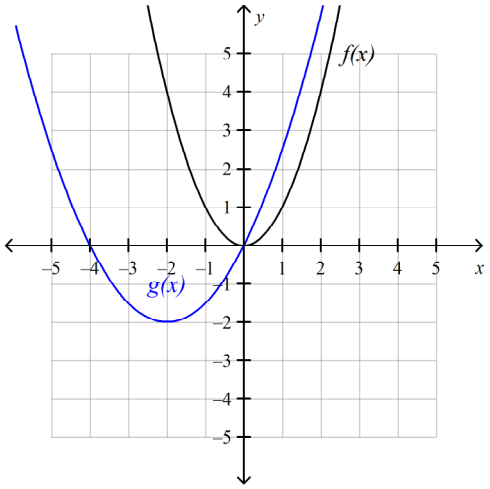
____ 5. $g(x) = \frac{1}{2}(x-2)^2 + 2$

a.



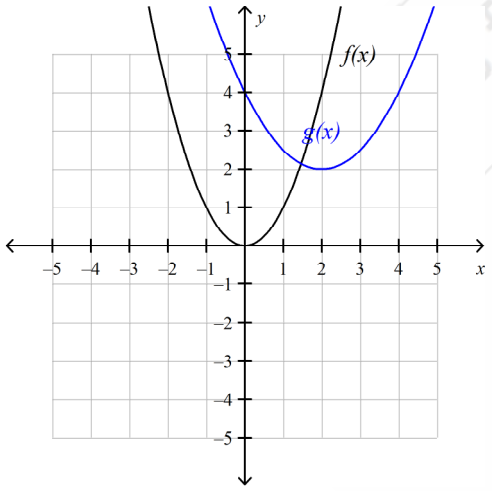
The graph of g is a translation 2 units left, a vertical shrink, and a translation 2 units up of the parent quadratic function.

c.



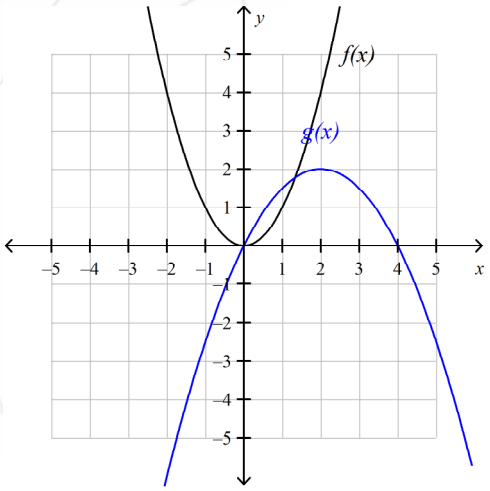
The graph of g is a translation 2 units left, a vertical shrink, and a translation 2 units down of the parent quadratic function.

b.



The graph of g is a translation 2 units right, a vertical shrink, and a translation 2 units up of the parent quadratic function.

d.



The graph of g is a translation 2 units right, a vertical shrink, a reflection in the x-axis, and a translation 2 units up of the parent quadratic function.

Function Families
Answer Section

MULTIPLE CHOICE

1. B
2. D
3. C
4. C
5. B