

# ANSWER PRESENTATION TOOL

Algebra 2 - Student Edit

1

1 - Practice

1-6,7,9,11,1

ALL EVEN

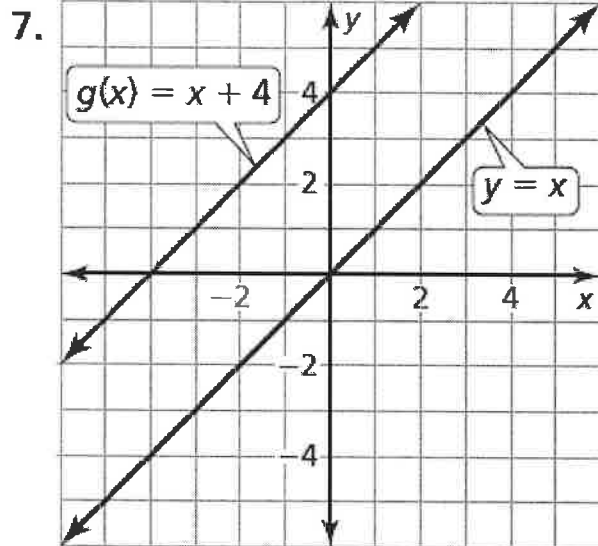
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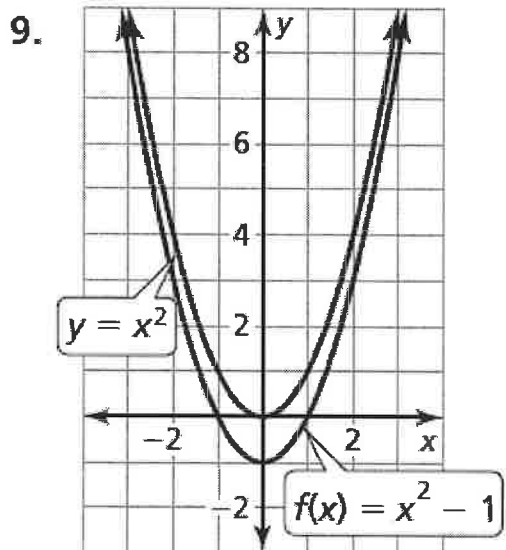
1. The function  $f$  belongs to the family of absolute value functions. The graph of  $f(x) = 2|x + 2| - 8$  is a horizontal translation 2 units left followed by a vertical stretch and a vertical translation 8 units down of the parent absolute value function. The domain of each function is all real numbers, but the range of  $f$  is  $y \geq -8$ , and the range of the parent function is  $y \geq 0$ .
2. The function  $f$  belongs to the family of quadratic functions. The graph of  $f(x) = -2x^2 + 3$  is a reflection in the  $x$ -axis followed by a vertical stretch and a vertical translation 3 units up of the parent absolute value function. The domain of each function is all real numbers, but the range of  $f$  is  $y \leq 3$ , and the range of the parent quadratic function is  $y \geq 0$ .
3. The function  $f$  belongs to the family of linear functions. The graph of  $f(x) = 5x - 2$  is a vertical stretch followed by a vertical translation 2 units down of the parent linear function. The domain and range of each function is all real numbers.
4. The function  $f$  belongs to the family of constant functions. The graph of  $f(x) = 3$  is a vertical translation 2 units up of the parent constant function. The domain of each function is all real numbers, but the range of  $f$  is  $y = 3$ , and the range of the parent function is  $y = 1$ .

5. The function  $f$  belongs to the family of quadratic functions.

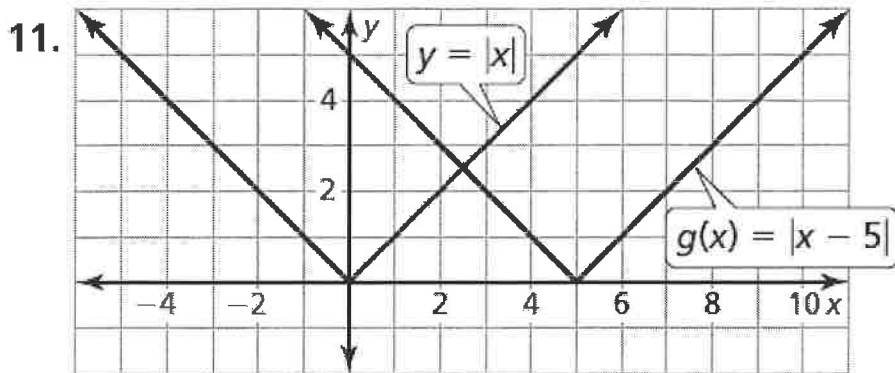
6. The function  $f$  belongs to the family of linear functions.



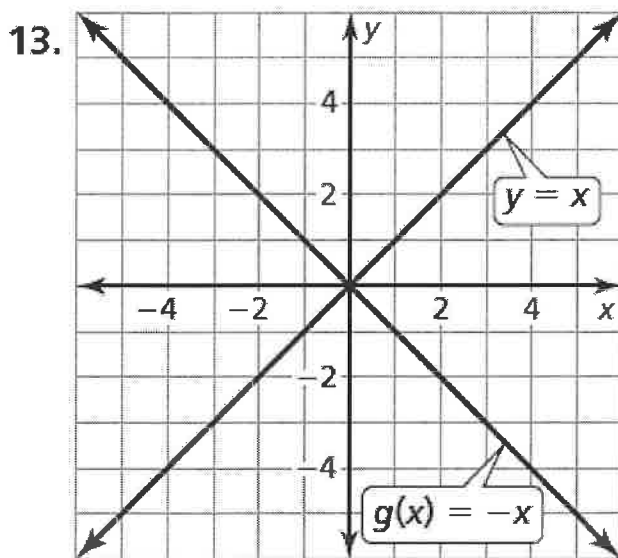
So, the graph of  $g(x) = x + 4$  is a vertical translation 4 units up of the parent linear function.



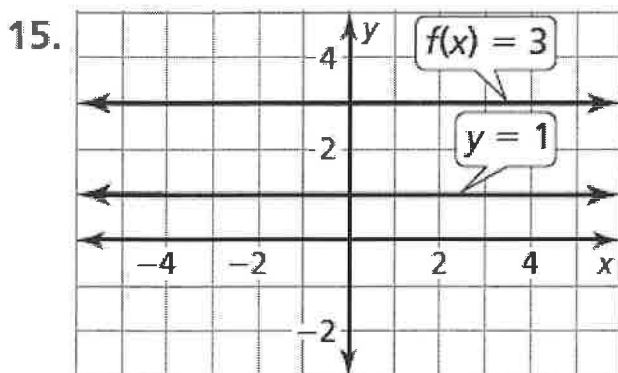
So, the graph of  $f(x) = x^2 - 1$  is a vertical translation 1 unit down of the parent quadratic function.



So, the graph of  $g(x) = |x - 5|$  is a horizontal translation 5 units right of the parent absolute value function.

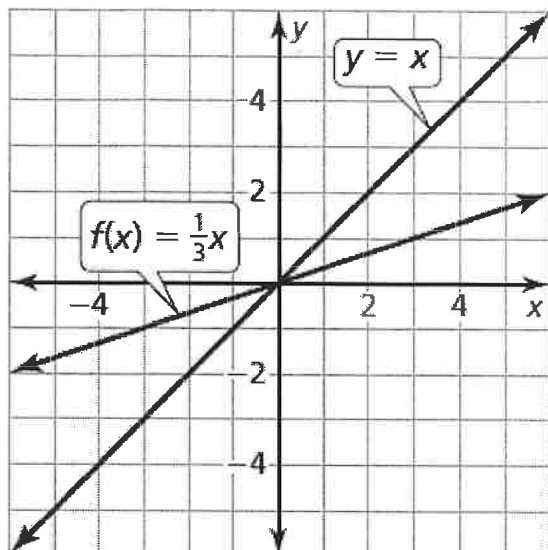


So, the graph of  $g(x) = -x$  is a reflection in the  $x$ -axis of the parent linear function.



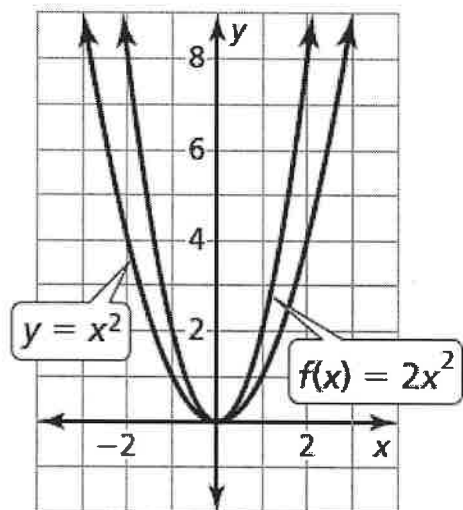
So, the graph of  $f(x) = 3$  is a vertical translation 2 units up of the parent constant function.

17.



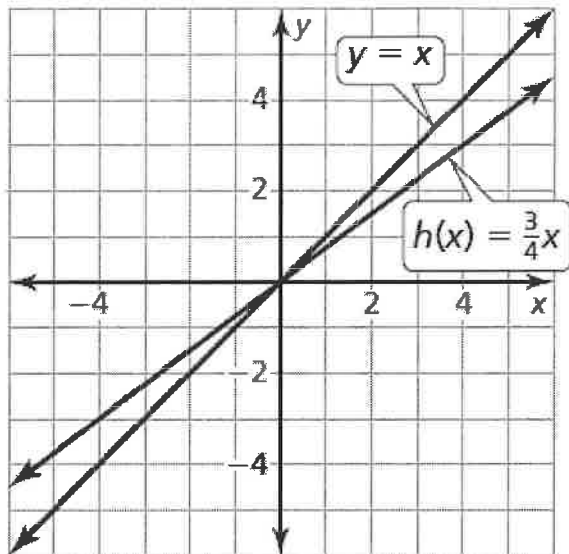
So, the graph of  $f(x) = \frac{1}{3}x$  is a vertical shrink of the parent linear function.

19.



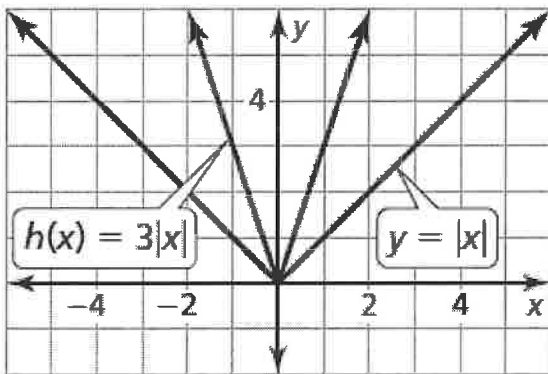
So, the graph of  $f(x) = 2x^2$  is a vertical stretch of the parent quadratic function.

21.



So, the graph of  $h(x) = \frac{3}{4}x$  is a vertical shrink of the parent linear function.

23.



So, the graph of  $h(x) = 3|x|$  is a vertical stretch of the parent absolute value function.

33. The graph of  $g$  is a horizontal translation 3 units left of the graph of  $f$ , not 3 units right.

