

ANSWER PRESENTATION TOOL

Algebra 2 - Student Edit

2

1 - Practice

1,3,5,7,9,11

ALL EVEN

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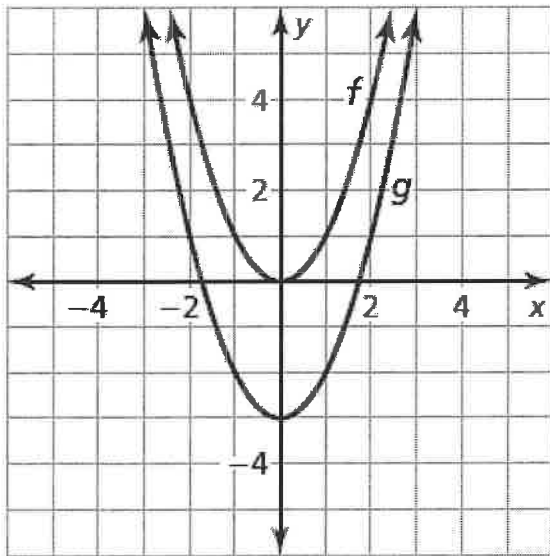
ODD

1. Notice that the function is of the form $g(x) = (x - h)^2 + k$.

Rewrite the function to identify h and k .

$$g(x) = (x - (0))^2 + (-3)$$

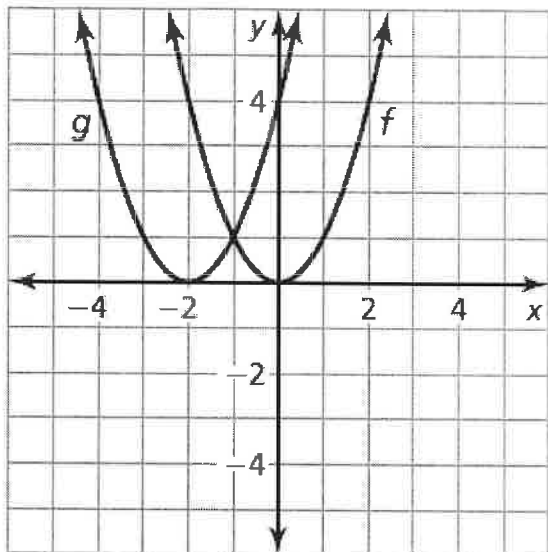
Because $h = 0$ and $k = -3$, the graph of g is a translation 3 units down of the graph of f .



3. Notice that the function is of the form $g(x) = (x - h)^2 + k$. Rewrite the function to identify h and k .

$$g(x) = (x - (-2))^2 + (0)$$

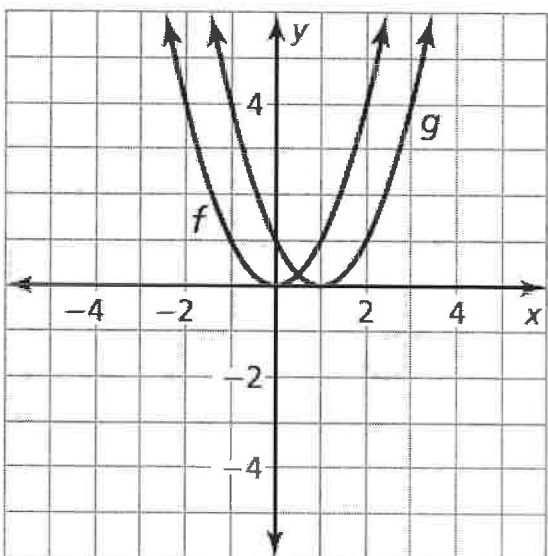
Because $h = -2$ and $k = 0$, the graph of g is a translation 2 units left of the graph of f .



5. Notice that the function is of the form $g(x) = (x - h)^2 + k$. Rewrite the function to identify h and k .

$$g(x) = (x - (1))^2 + (0)$$

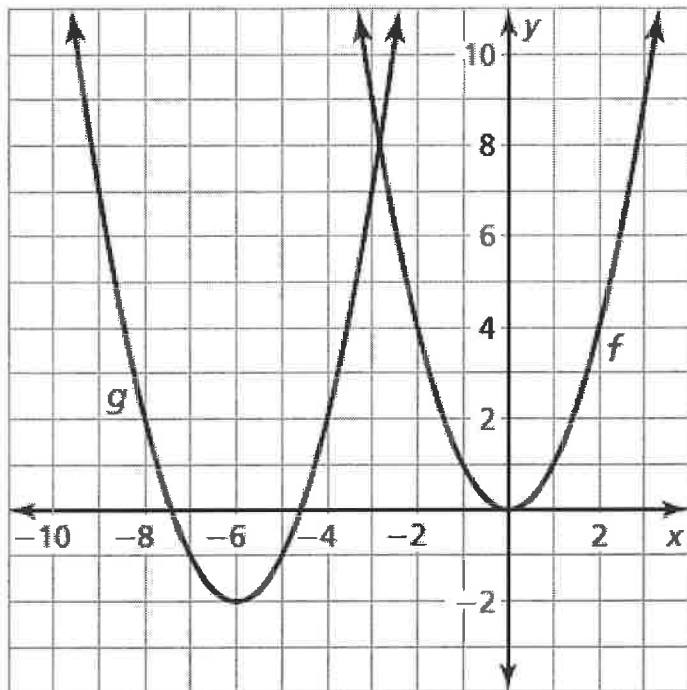
Because $h = 1$ and $k = 0$, the graph of g is a translation 1 unit right of the graph of f .



7. Notice that the function is of the form $g(x) = (x - h)^2 + k$. Rewrite the function to identify h and k .

$$g(x) = (x - (-6))^2 + (-2)$$

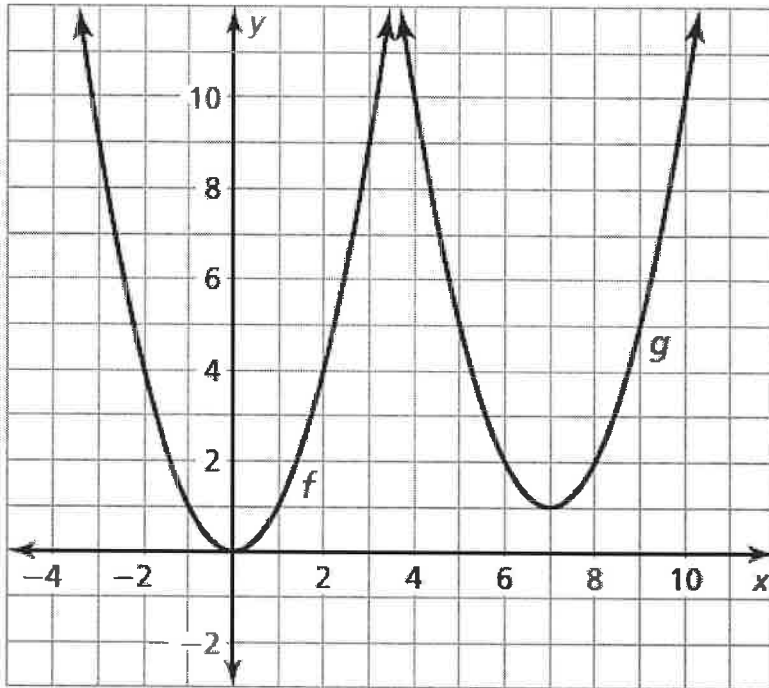
Because $h = -6$ and $k = -2$, the graph of g is a translation 6 units left and 2 units down of the graph of f .



9. Notice that the function is of the form $g(x) = (x - h)^2 + k$. Rewrite the function to identify h and k .

$$g(x) = (x - (7))^2 + (1)$$

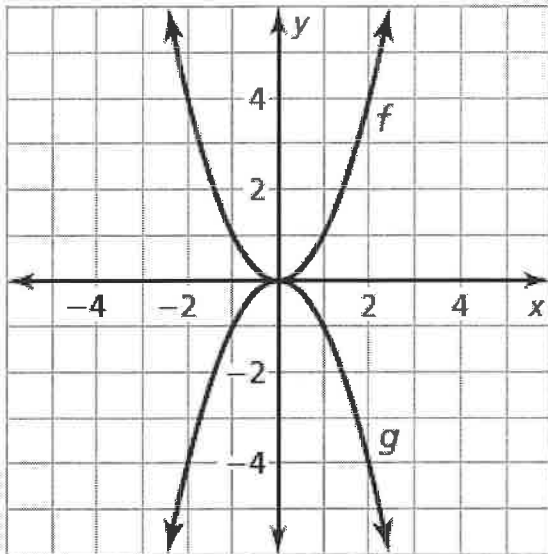
Because $h = 7$ and $k = 1$, the graph of g is a translation 7 units right and 1 unit up of the graph of f .



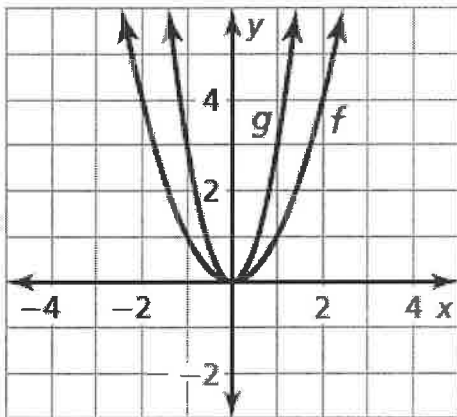
11. A; The graph is the original graph translated 1 unit right.

13. C; The graph is the original graph translated 1 unit up and 1 unit right.

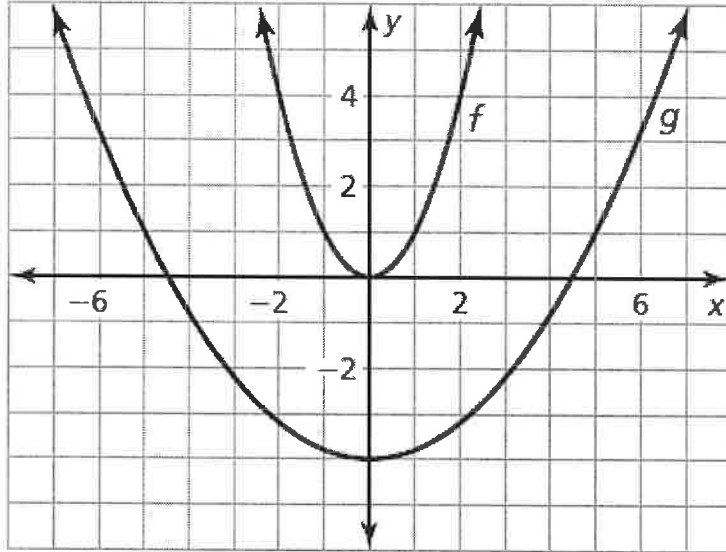
15. Notice that the function is of the form $g(x) = -(x^2)$. So, the graph of g is a reflection in the x -axis of the graph of f .



17. Notice that the function is of the form $g(x) = ax^2$, where $a = 3$. So, the graph of g is a vertical stretch by a factor of 3 of the graph of f .



21. Notice that the function is of the form $g(x) = ax^2 + k$, where $a = \frac{1}{5}$ and $k = -4$. So, the graph of g is a vertical shrink by a factor of $\frac{1}{5}$ followed by a translation 4 units down of the graph of f .



23. The graph is a reflection in the x -axis, not y -axis; The graph is a reflection in the x -axis and a vertical stretch by a factor of 6, followed by a translation 4 units up of the graph of the parent quadratic function.

25. The transformation is a horizontal translation to the left 2 units, followed by a vertical stretch by a factor of 3, then a vertical translation 1 unit up; The vertex is $(-2, 1)$.

27. The transformation is a vertical stretch by a factor of 2 and a reflection in the x -axis, then a vertical translation 5 units up; The vertex is $(0, 5)$.

29. Write the transformation.

$$\begin{aligned}g(x) &= a(x - h)^2 + k \\ &= -4(x - 0)^2 + 2 \\ &= -4x^2 + 2\end{aligned}$$

The vertex is (0, 2).

33. C; This is a vertical stretch by a factor of 2 with a translation 1 unit right and 2 units down.

35. D; This is a vertical stretch by a factor of 2 with a reflection in the x -axis and a translation 1 unit right and 2 units up.

37. F; This is a vertical stretch by a factor of 2 with a reflection in the x -axis and a translation 1 unit left and 2 units down.

