Practice 11

Library of Functions with Shifts
Reflection about the x-axis and y-axis, and Stretching and Shrinking

Begin by graphing the standard quadratic function $f(x) = x^2$. Then use transformations of this graph to graph the given function.

1) $g(x) = x^2 - 2$ 1) _____

Begin by graphing the standard square root function $f(x) = \sqrt{x}$. Then use transformations of this graph to graph the given function.

2) $g(x) = \sqrt{x} - 1$ 2) _____

Begin by graphing the standard absolute value function $f(x) = |x|$. Then use transformations of this graph to graph the given function.

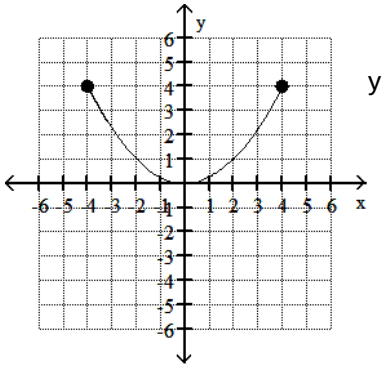
3) $g(x) = |x| - 3$ 3) _____

Begin by graphing the standard function $f(x) = x^3$ Then use transformations of this graph to graph the given function.

4) $g(x) = x^3 - 2$ 4) _____

Use the graph of the function f, plotted with a solid line, to sketch the graph of the given function g.

5) $g(x) = f(x) - 1$ 5) _____



y = f(x)

Begin by graphing the standard quadratic function $f(x) = x^2$. Then use transformations of this graph to graph the given function.

6) $h(x) = (x - 2)^2$ 6) _____

Begin by graphing the standard square root function $f(x) = \sqrt{x}$. Then use transformations of this graph to graph the given function.

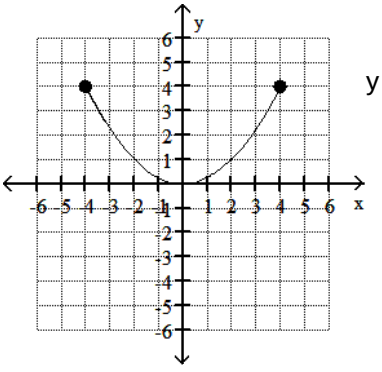
7) $h(x) = \sqrt{x + 2}$ 7) _____

Begin by graphing the standard absolute value function $f(x) = |x|$. Then use transformations of this graph to graph the given function.

8) $h(x) = |x + 6| + 6$ 8) _____

Use the graph of the function f, plotted with a solid line, to sketch the graph of the given function g.

9) g(x) = f(x - 2) 9) _____



y = f(x)

Begin by graphing the standard quadratic function $f(x) = x^2$. Then use transformations of this graph to graph the given function.

10) $h(x) = -(x + 2)^2$ 10) _____

Begin by graphing the standard square root function $f(x) = \sqrt{x}$. Then use transformations of this graph to graph the given function.

11) $g(x) = -\sqrt{x} - 4$ 11) _____

Begin by graphing the standard absolute value function $f(x) = |x|$. Then use transformations of this graph to graph the given function.

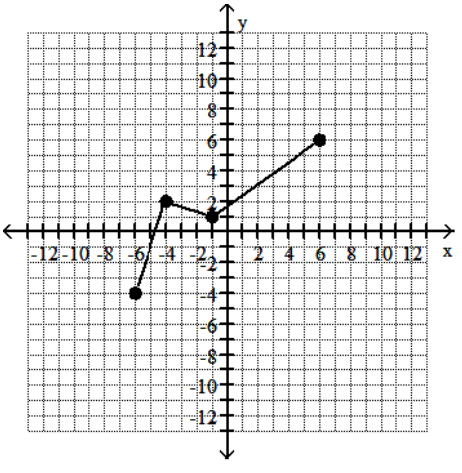
12) $h(x) = 2|x| + 4$ 12) _____

Begin by graphing the standard cubic function $f(x) = x^3$. Then use transformations of this graph to graph the given function.

13) $g(x) = -\frac{1}{2}x^3$ 13) _____

Use the graph of y = f(x) to graph the given function g.

14) g(x) = 2f(x) 14) _____



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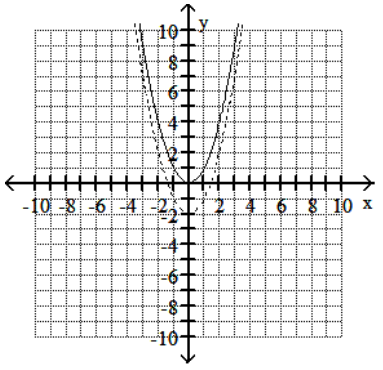
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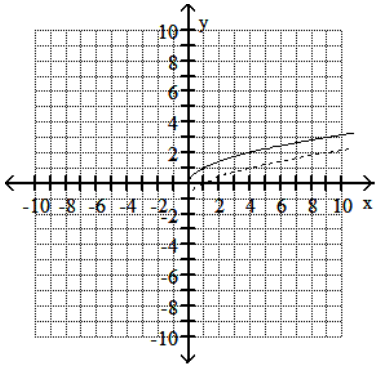
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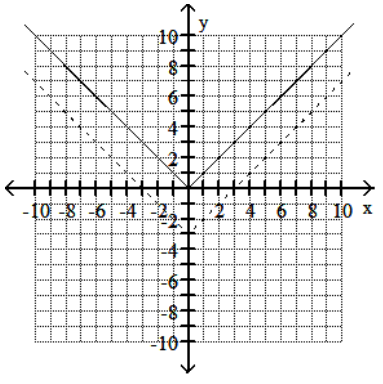
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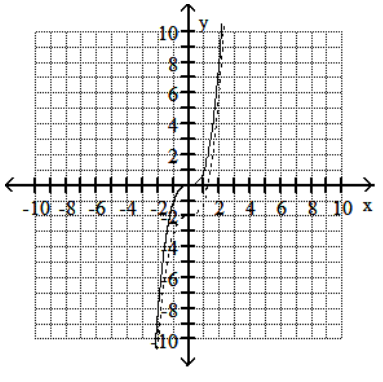
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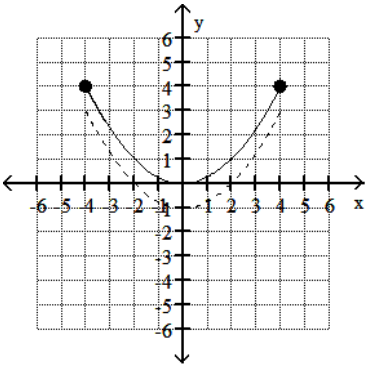
5)



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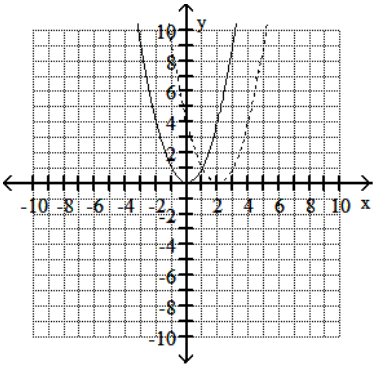

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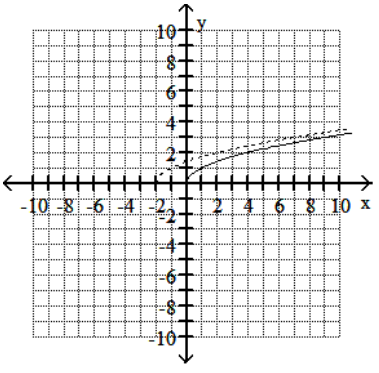

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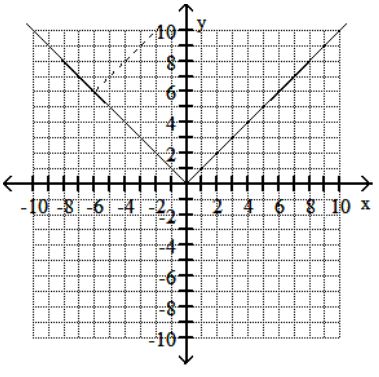

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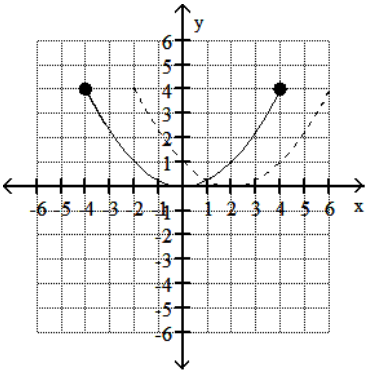

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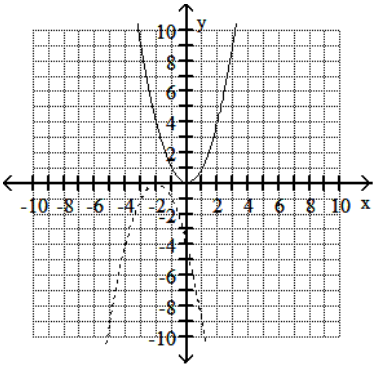

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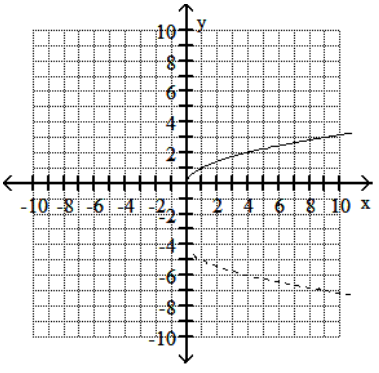

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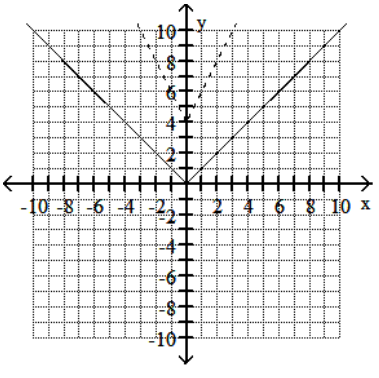
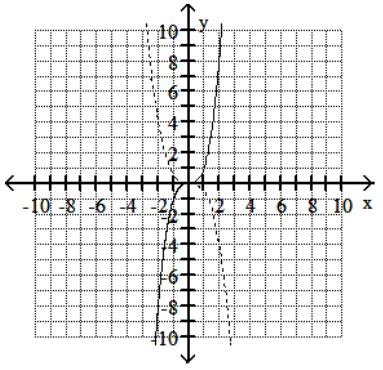


13)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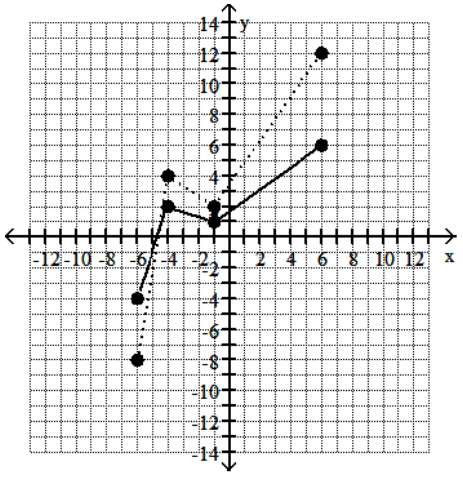
14)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