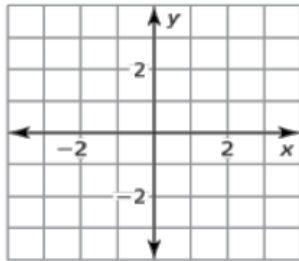


- Write the equation for the graph of function $g(x)$, obtained by shifting the graph of $f(x) = x^2$ three units left, stretching the graph vertically by a factor of two, reflecting that result over the x -axis, and then translating the graph up four units.
- Describe the transformations that would produce the graph of the second function from the graph of the first function.
 - $f(x) = x^2$ becomes $f(x) = (x - 3)^2 + 5$
 - $f(x) = x^3$ becomes $f(x) = -3x^3 - 1$
 - $f(x) = x^4$ becomes $f(x) = \frac{1}{2}(x + 1)^4 - 3$
 - $f(x) = x^2$ becomes $f(x) = -2(3x - 2)^2 + 5$
- Write the equation for the graph of function $g(x)$, obtained by shifting the graph of $f(x) = x^4$ two units right and up four units.

Describe the transformation(s) of f represented by g . Then graph the function.

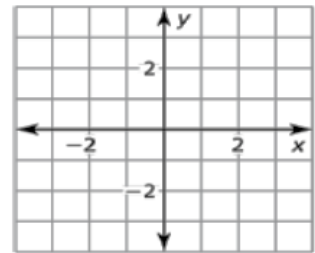
4 $f(x) = x^3, g(x) = (x + 1)^3 + 2$

Transformation(s):



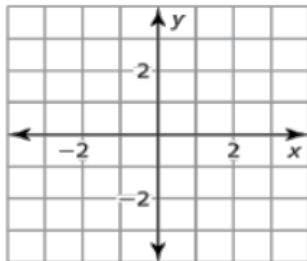
5 $f(x) = x^3, g(x) = -(x - 3)^3 + 1$

Transformation(s):



6 $f(x) = x^3, g(x) = -x^3 + 1$

Transformation(s):



7 $f(x) = x^3, g(x) = 2(x + 1)^3 + 1$

Transformation(s):

