

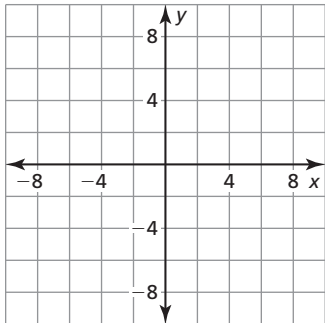
2.1 Notetaking with Vocabulary (continued)

Extra Practice

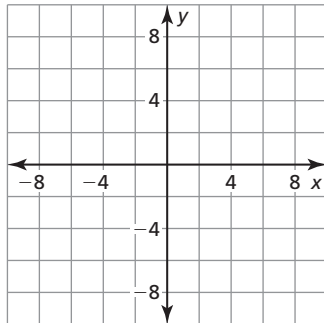
In Exercises 1–6, describe the transformation of $f(x) = x^2$ represented by g .

Then graph the function.

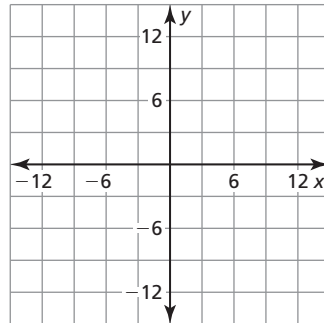
1. $g(x) = x^2 + 4$



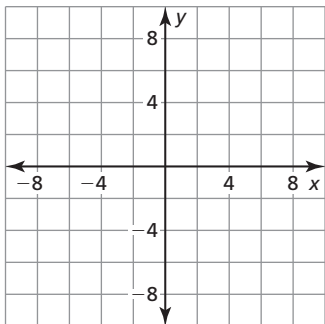
2. $g(x) = (x - 1)^2 - 3$



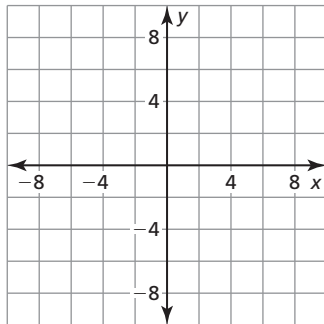
3. $g(x) = -(x + 9)^2$



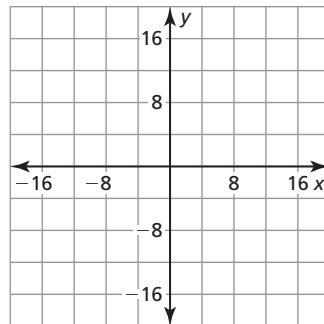
4. $g(x) = x^2 - 7$



5. $g(x) = \frac{1}{3}x^2 - 6$



6. $g(x) = (-4x)^2$



7. Consider the function $f(x) = -10(x - 5)^2 + 7$. Describe the transformation of the graph of the parent quadratic function. Then identify the vertex.