

1. How do the constants a , h , and k affect the graph of the quadratic function $g(x) = a(x - h)^2 + k$?

a -

h -

k -

2. Match each quadratic function with its graph.

a. $g(x) = -(x - 2)^2$

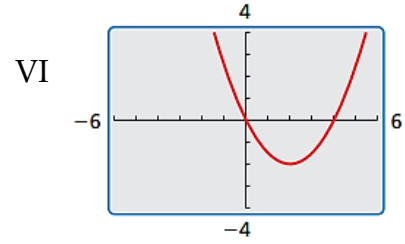
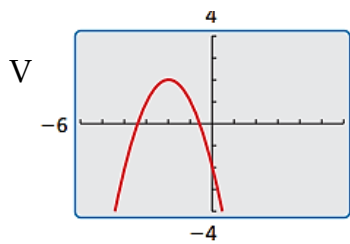
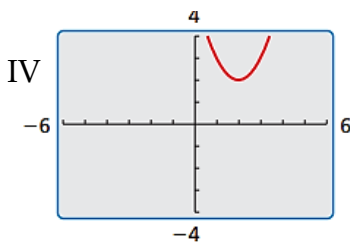
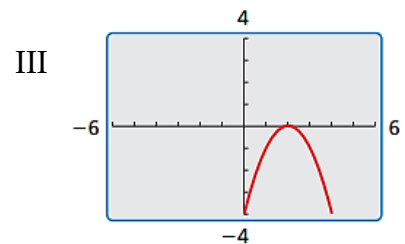
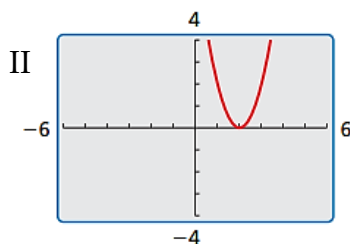
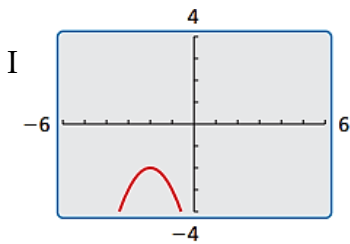
b. $g(x) = (x - 2)^2 + 2$

c. $g(x) = -(x + 2)^2 - 2$

d. $g(x) = 0.5(x - 2)^2 - 2$

e. $g(x) = 2(x - 2)^2$

f. $g(x) = -(x + 2)^2 + 2$



3. Describe the transformation performed on each function $f(x)$ to result in $g(x)$.

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

b. $g(x) = -(x - 2)^2 - 2$

c. $g(x) = (x + 5)^2 + 1$

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

e. $g(x) = -x^2 + 1$

f. $g(x) = 2(x + 2)^2$

g. $g(x) = \frac{1}{2}(x - 4)^2$

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

i. $g(x) = (x + 3)^2$

j. $g(x) = 0.5(x + 6)^2 - 2$