

a. $y = (x + 3)^2 + 1$

c. $y = -(x + 3)^2$

b. $y = (x^2 + 3)$

d. $y = x^2 + 3$

_____ 8. List the sequence of steps required to graph the function $f(x) = 2(x + 4)^2 + 3$.

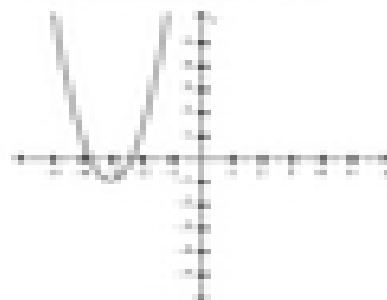
a. Horizontal translation 4 units to the right, vertical compression by a factor of 2, vertical translation 3 units down

b. Horizontal translation 4 units to the right, reflection in x axis, vertical translation 3 units down

c. Horizontal translation 4 units to the left, vertical translation 3 units up, reflection in x axis

d. Horizontal translation 4 units to the left, reflection in x axis, vertical translation 3 units down

_____ 9. Which function matches the graph?



a. $f(x) = -(x + 2)^2 + 1$

c. $f(x) = (x + 2)^2 - 1$

b. $f(x) = 4(x + 2)^2 + 1$

d. $f(x) = \frac{1}{4}(x + 2)^2 + 1$

_____ 10. Consider a parabola P that is congruent to $2x^2 + 3x - 2$, opens upward, and has vertex $P(-1, 2)$. Write the equation of a new parabola that results if P is reflected in the x axis and translated 3 units down.

a. $y = -(x + 4)^2 + 2$

c. $-2x + 3x^2$

b. $y = (x - 3)^2 + 6$

d. $(x - 3)^2 + 5$

_____ 11. The graphs of $2x^2 + 3x - 2$ and another parabola are shown below. What is a possible equation for the second parabola?