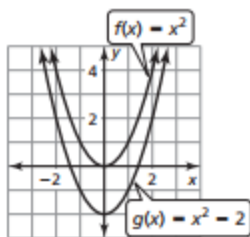
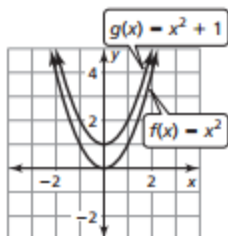


2.1 Practice A

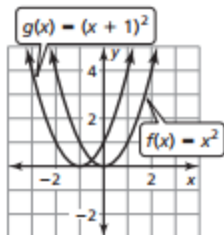
1. The graph of g is a translation 2 units down of the graph of f .



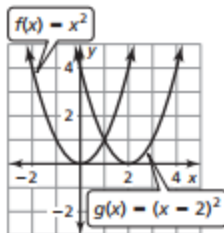
2. The graph of g is a translation 1 unit up of the graph of f .



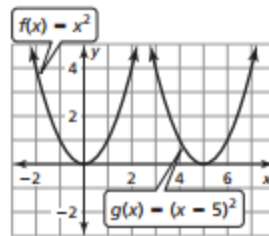
3. The graph of g is a translation 1 unit left of the graph of f .



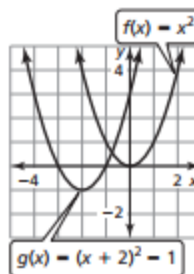
4. The graph of g is a translation 2 units right of the graph of f .



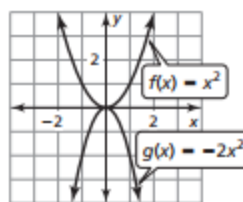
5. The graph of g is a translation 5 units right of the graph of f .



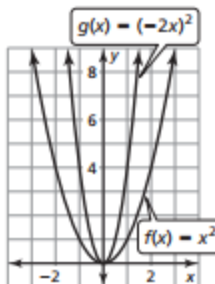
6. The graph of g is a translation 2 units left and 1 unit down of the graph of f .



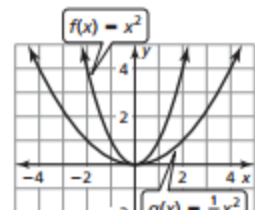
7. The graph of g is a reflection in the x -axis followed by a vertical stretch by a factor of 2 of the graph of f .



8. The graph of g is a reflection in the y -axis followed by a horizontal shrink of the graph of f by a factor of $\frac{1}{2}$.



9. The graph of g is a vertical shrink by a factor of $\frac{1}{4}$ of the graph of f .



10. When $0 < a < 1$ in the function $g(x) = a \cdot f(x)$, the transformation is a vertical shrink, not stretch; The graph of g is a reflection in the x -axis followed by a vertical shrink by a factor of $\frac{1}{3}$ of the graph of the parent quadratic function.
11. The graph is a vertical stretch by a factor of 2, followed by a translation 3 units left and 2 units up of the parent quadratic function; $(-3, 2)$
12. The graph is a reflection in the x -axis, followed by a vertical stretch by a factor of 5 and a translation 1 unit down of the parent quadratic function; $(0, -1)$
13. $g(x) = -3x^2 - 3$; $(0, -3)$
14. $g(x) = -x^2 - 7$; $(0, -7)$
15. a. $a = 2, h = 3, k = -4$; $g(x) = (2x - 3)^2 - 4$
b. $a = 4, h = 3, k = -4$; $g(x) = 4(x - 3)^2 - 4$

2.1 Puzzle Time

EL SALVADOR