Let's make a move

Using the online graphing calculator graph the parent function $f(x) = x^2$.

Graph each of the following functions and answer the questions

1) $f(x) = (x + 2)^2 - 4$

   a. Did it move left or right? _____ How far? _____

   b. Did it move up or down? _____ How far? _____

   c. What is the center point? _____

2) $f(x) = (x - 3)^2 - 2$

   a. Did it move left or right? _____ How far? _____

   b. Did it move up or down? _____ How far? _____

   c. What is the center point? _____

3) $f(x) = (x + 1)^2 + 5$

   a. Did it move left or right? _____ How far? _____

   b. Did it move up or down? _____ How far? _____

   c. What is the center point? _____

4) $f(x) = (x - 4)^2 + 3$

   a. Did it move left or right? _____ How far? _____

   b. Did it move up or down? _____ How far? _____

   c. What is the center point? _____

Let's make a move

Using the online graphing calculator graph the parent function $f(x) = x^2$.

Graph each of the following functions and answer the questions

5) $f(x) = x^2 - 4$

   a. Did it move left or right? _____ How far? _____

   b. Did it move up or down? _____ How far? _____

   c. What is the center point? _____

6) $f(x) = x^2 + 1$

   a. Did it move left or right? _____ How far? _____

   b. Did it move up or down? _____ How far? _____

   c. What is the center point? _____

7) $f(x) = (x + 5)^2$

   a. Did it move left or right? _____ How far? _____

   b. Did it move up or down? _____ How far? _____

   c. What is the center point? _____

8) $f(x) = (x - 3)^2$

   a. Did it move left or right? _____ How far? _____

   b. Did it move up or down? _____ How far? _____

   c. What is the center point? _____

9) $f(x) = (x - h)^2 + k$

   a. Did it move left or right? _____ How far? _____

   b. Did it move up or down? _____ How far? _____

   c. What is the center point? _____