Math 2 Name_____

6.1 Changing Forms

Date_____ Period____

Change the Standard Form of the following Quadratics to Vertex Form.

1) $y = -x^2 + 8x - 19$

2) $y = 2x^2 - 12x + 19$

3) $y = 4x^2 - 16x + 17$

4) $y = x^2 + 2x$

5) $y = -x^2 + 4x - 5$

6) $y = -2x^2 - 16x - 36$

Change the following Vertex form quadratics to Standard form.

7) $y = (x - 2)^2 - 4$

8) $y = (x - 1)^2 + 1$

9) $y = 2(x - 4)^2 + 3$

10) $y = -2(x - 1)^2 - 3$

State the Transformations of the quadratic from the parent functions

11) $y = x^2 - 2x - 3$

12) $y = -x^2 + 8x - 18$

Identify the relative Min or the relative Max for the following quadratics

13) $y = x^2 + 8x + 14$

14) $y = -2x^2 - 8x - 12$

15) Uncle Rico throwns a football in the air. The path of the football is represented by h(t)= $-4.9t^2 + 19.6t + 58.8$. Here t is time and h is the height of the ball from the ground. What is the Maximum height the ball gets from the ground

16) An object in launched directly upward at 64 feet per second (ft/s) from a platform 80 feet high. What will be the object's maximum height? When will it attain this height? Use the equation: h(t) = $-16t^2 + 64t + 80$, where t is time and h is the height of the object from the ground.