Standard vs Vertex Form of a Quadratic Equation Homework

Name_____ Date_____

$f(x) = ax^2 + bx + c$	$f(x) = a(x-p)(x-q)$	$f(x) = a(x-h)^2 + k$
Name the Form:	Name the Form:	Name the Form:
What are 2 things this form can tell us?	What are 2 things this form can tell us?	What are 2 things this form can tell us?

Write the vertex of Quadratic Function. Describe the transformations from the origin (0,0).

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

2. $f(x) = -(x+9)^2 - 2$

3. $f(x) = \dfrac{1}{2}(x-10)^2$

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

5. $f(x) = \dfrac{2}{3}(x-8)^2$

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

Write the equation in vertex form of the quadratic equation given the following information.

7. shifted to the right 4 and up 3

8. reflected over the x – axis and shifted left 11

9. moved down 17

10. reflected over the x – axis, shifted left 9 and down 8

11. Vertical Stretch of 3, left 5, up 4

12. Vertical Shrink of ½, down 7

13. Reflected over the x-axis, vertical stretch of 5, down 4

14. Up 3, right 6, reflect over the x-axis, vertical shrink of ¼