## SM3 HW \#1-2 (xfrm Quad. Function)

Date $\qquad$ Period $\qquad$

1) Compare the following equation to the parent function for quadratics $y=x^{2}$.
a) Give the location of the vertex $(x, y)$.
b) Identify the transformations that have been applied to the parent function.
$y=2 x^{2}$
2) Compare the following equation to the parent function for quadratics $y=x^{2}$.
a) Give the location of the vertex $(x, y)$.
b) Identify the transformations that have been applied to the parent function.
$y=3 x^{2}+2$
3) Compare the following equation to the parent function for quadratics $y=x^{2}$.
a) Give the location of the vertex $(x, y)$.
b) Identify the transformations that have been applied to the parent function.
$y=-5 x^{2}+4$
4) a) Identify the transformations that been applied to the parent function $y=x^{2}$
b) what is the equation for the graph?

5) Compare the following equation to the parent function for quadratics $y=x^{2}$.
a) Give the location of the vertex ( $\mathrm{x}, \mathrm{y}$ ).
b) Identify the transformations that have been applied to the parent function.
$y=x^{2}-5$
6) Compare the following equation to the parent function for quadratics $y=x^{2}$.
a) Give the location of the vertex ( $x, y$ ).
b) Identify the transformations that have been applied to the parent function.
$y=(x-2)^{2}$
7) Compare the following equation to the parent function for quadratics $y=x^{2}$.
a) Give the location of the vertex ( $\mathrm{x}, \mathrm{y}$ ).
b) Identify the transformations that have been applied to the parent function.
$y=6(x+3)^{2}-1$
8) a) Identify the transformations that been applied to the parent function $y=x^{2}$
b) what is the equation for the graph?

9) a) Identify the transformations that been applied to the parent function $y=x^{2}$
b) what is the equation for the graph?

10) a) Identify the transformations that been applied to the parent function $y=x^{2}$
b) what is the equation for the graph?

11) a) Identify the transformations that been applied to the parent function $y=x^{2}$
b) what is the equation for the graph?

12) a) Identify the transformations that been applied to the parent function $y=x^{2}$
b) what is the equation for the graph?

13) a) Identify the transformations that been applied to the parent function $y=x^{2}$
b) what is the equation for the graph?

14) a) Identify the transformations that been applied to the parent function $y=x^{2}$
b) what is the equation for the graph?

