Math 2- Function Transformation　　　　　　　　　　　　　　Name:_____
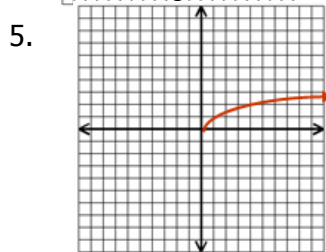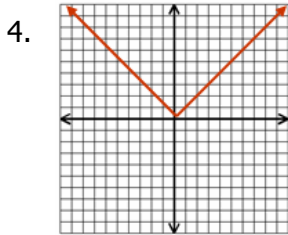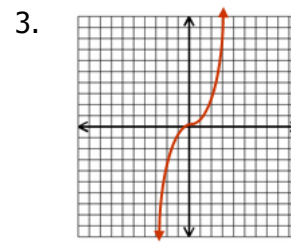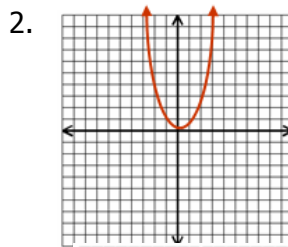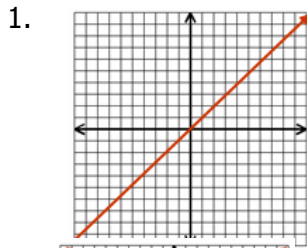
Match the name & equation to the graph.

Names: A) absolute value B) cubic C) linear　　D) quadratic　　　E) radical

Equations: F) y = x G) y = x^2　　H) y = x^3　　I) y = |x|　　　J) $y = \sqrt{x}$

1.

2.

3.

4.

5.

$$y = a(x\text{-}h)^2 + k$$

_____6) describe the effect of **a** on the graph.

_____7) describe the effect of **h** on the graph.

_____8) describe the effect of **k** on the graph.

Identify the parent function name and describe the transformation for each function.

9) g(x) = 3(x-1)^2 – 6　　　　　Name:_____

Transformation: 1)_____2)_____3)_____

10) f(x) = 5(x-2)^3 – 11　　　　　Name:_____

Transformation: 1)_____2)_____3)_____

11) h(x) = $\frac{2}{3}|x + 6|$ Name:_____ Transformation 1)_____2)_____

12) f(x) = x + 6　　　　　Name:_____ Transformation 1)_____

13) What is the effect on the graph of the function $y = x^2 + 2$ when it is changed to $y = x^2 - 3$?_____