**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**CC Algebra**

**Transformations of Functions Homework**

**1. Match the name and the equation of each of the following graphs.**

**Names: A) Absolute Value B) Cubic C) Linear D) Square Root**

**Equations: E) y = x F) y = x3 G) y =** $\left|x\right|$ **H) y =** $\sqrt{x}$

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**For #’s 2-4 Describe the transformation for each function given the parent function.**

2. Parent function: g(x) = x2 Function after transformation: g(x) = 3(x – 1)2 – 6

3. Parent function: f(x) = x3 Function after transformation: f(x) = 5(x – 2)3 – 11

4. Parent function: h(x) =$\left|x\right|$ Function after transformation: h(x) = $\frac{2}{3}\left|x+6\right|$

**For #’s 5 and 6 Name the Parent Function, describe the transformation, and graph each equation.**

5. f(x)= $2\left|x-3\right|+2$

6. g(x) = $\sqrt{x+5}-3$