

# D3 – HW Transformations of Parent Graphs

Algebra 3-4

Name: \_\_\_\_\_

**Directions:** Identify parent graph and the transformation for each equation.

1.  $y = (x - 4)^2 + 2$

Parent Graph: \_\_\_\_\_

Vertical shift: \_\_\_\_\_

Horizontal Shift: \_\_\_\_\_

6.  $y = 2^{(x-4)} + 2$

Parent Graph: \_\_\_\_\_

Vertical shift: \_\_\_\_\_

Horizontal Shift: \_\_\_\_\_

2.  $y = (x + 5)^3 - 7$

Parent Graph: \_\_\_\_\_

Vertical shift: \_\_\_\_\_

Horizontal Shift: \_\_\_\_\_

7.  $y = (x - 9)^2 - 2$

Parent Graph: \_\_\_\_\_

Vertical shift: \_\_\_\_\_

Horizontal Shift: \_\_\_\_\_

3.  $y = \sqrt{x - 3} + 1$

Parent Graph: \_\_\_\_\_

Vertical shift: \_\_\_\_\_

Horizontal Shift: \_\_\_\_\_

8. On the reverse side, graph 3 of the above equations.

4.  $y = \sqrt[3]{x + 10} - 9$

Parent Graph: \_\_\_\_\_

Vertical shift: \_\_\_\_\_

Horizontal Shift: \_\_\_\_\_

5.  $y = \frac{1}{(x+6)} + 6$

Parent Graph: \_\_\_\_\_

Vertical shift: \_\_\_\_\_

Horizontal Shift: \_\_\_\_\_

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