

Name: \_\_\_\_\_ Hour: \_\_\_\_\_ Date: \_\_\_\_\_

## Function Transformations Practice IV

Directions: For each of the following, state the name/equation of the parent function, identify the values of  $a$ ,  $h$  and  $k$ , and describe the transformations, using the proper vocabulary.

1)  $j(x) = 2|x - 1| + 3$

$a =$                      $h =$                      $k =$

Function Family:

Parent Function Equation:

Transformations:

2)  $j(x) = 2^{x-3} + 4$

$a =$                      $h =$                      $k =$

Function Family:

Parent Function Equation:

Transformations:

3)  $j(x) = x^2 - 4$

$a =$                      $h =$                      $k =$

Function Family:

Parent Function Equation:

Transformations:

4)  $j(x) = 0.4\sqrt[3]{x - 2}$

$a =$                      $h =$                      $k =$

Function Family:

Parent Function Equation:

Transformations:

5)  $j(x) = -\log(x + 3)$

$a =$                      $h =$                      $k =$

Function Family:

Parent Function Equation:

Transformations:

## Function Transformations Practice V

Directions: Use the given information to write the equation of a transformed parent function.

- 6) Function Family: Linear

$$a = -1/2 \quad h = 0 \quad k = 5$$

- 7) Function Family: Radical Even

$$a = -1 \quad h = -2 \quad k = -1$$

- 8) Function Family: Polynomial Odd

$$a = -1 \quad h = 2 \quad k = -4$$

- 9) Function Family: Exponential Decay

Transformations: Reflect over the x-axis Translate left 2

**SLOT PRACTICE: You have a slot quiz tomorrow!**

Factor the following,

1)  $3x^2 - 2x - 5$

2)  $2x^2 + 3x - 9$

3)  $3x^2 - 8x + 4$

4)  $2x^2 + 11x + 5$