Week 5 Homework Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

ELG: F.5 Identify effects of transformations (translations, reflections, stretches/shrinks) on parent functions.

Part One: Parent Functions

Please identify the two major parent functions we have investigated this chapter. Write their equations and sketch a graph of them.

1. f(x)= 2. f(x)=

Part two: Given the function, graph it.

1. f(x) = (x – 2)² 4. h(x) = -6 Ix + 2I – 4
2. g(x) = -IxI + 5 5. k(x) = -(x)²+ 6
3. v(x) = ½ (x + 4)² – 5 6. r(x) =2 Ix – 2I + 3

Part Three: Given the function and the graph, please write what is wrong with the graph, then on the same graph please draw the right function and give the equation of the wrong graph.

1. f(x) = -(x + 1)² What is wrong with the graph? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Equation of wrong graph \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. g(x) = 3 Ix + 2I – 4 What is wrong with the graph? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Equation of wrong graph \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. j(x) = ½ (x – 2) + 4 What is wrong with the graph? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Equation of wrong graph \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Part four: Find the indicated function value given that

f(x) = x² + 2 g(x) = (x – 2) ² + 1 h(x) = Ix – 7I

1. f(-5) 3. h(1) 5. f(4) 7. g(8)

1. g(4) 4. h(-9) 6. f(-11) 8. g(-7)