Summative Assessment – Transformations of Functions

1. f(x) = |x|, g(x) = √x, h(x) = x², i(x) = x³

Evaluate the following using the above functions:

1. f(x) for x = -5
2. g(x) for x = 10
3. h(x) for x = 10
4. i(x) for x = 3
5. f(4)
6. g(4)
7. h(4)
8. i(4)
9. Graph f(x) = |x| and h(x) = 2|x+1| on a Cartesian coordinate plane.

Compare the two graphs and explain the transformation from f(x) to h(x).

1. If f(x) = x² and g(x) = x²- 4, explain how the graphs of f(x) and g(x) would differ.
2. How does the graph of h(x) = 1/3 x³ differ from its parent function graph.
3. Explain the transformation of f(x) = x² to h(x) = -5x²
4. Which function is the result of transforming the parent function f(x) = x³, 3 units left and reflecting through the x axis?
5. G(x) = -x³ - 3, b) h(x) = x³ -3, c) -x³ = 3, d) none of the above