**Summary Unit One: Introduction to Functions and Transformations**

Things to know. Be able to…

1. Determine if a relationship is a function from an equation, table of values, mapping, and a graph.
2. Determine the domain and range of a relationship from the equation or graph.
3. Evaluate/simplify functions. Example: If $f\left(x\right)=2x-8$ , evaluate f(3) or simplify $f(x-3)$.
4. Apply transformations (k, d, a and c) to graph a function.
5. Determine the inverse of a function.
6. Know the general shape of the following functions:

$$y=\left|x\right| y=\sqrt{x} y=\frac{1}{x} y = x^{2} y=x$$

Practice Question

Determine the values of k, d, a and c then describe the transformation for each constant.

1. $y=f\left(4x+20\right)-3$ b) $y=-2\sqrt{3-x}+5$

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| --- | --- |
| Constant | Transformation |
| k |  |
| d |  |
| a |  |
| c |  |

|  |  |
| --- | --- |
| Constant | Transformation |
| k |  |
| d |  |
| a |  |
| c |  |