Parent Function Project
Due Friday February 12

You will be creating a parent function book. Each parent function will consist of two pages. The first page will consist of the name of the function, the equation, and a picture from a magazine, book, or internet with the graph highlighted in the image.
The second page will consist of a table of values, the graph on the coordinate plane, domain, range, x-intercpets, y-intercepts, where it is increasing and/or decreasing or constant, whether it is odd, even or neither, and any asymptotes.
You should have each of the following parent functions:

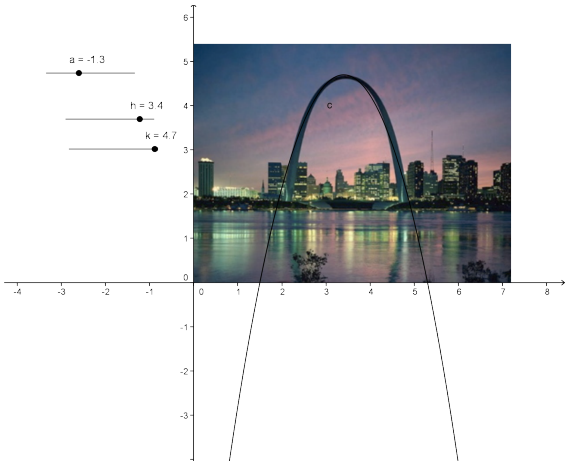
1. Linear $f(x)=x$
2. Quadratic $f(x)=x^2$
3. Absolute Value $f(x)=|x|$
4. Square Root $f(x)=\sqrt{x}$
5. Cubic $f(x)=x^3$
6. Rational $f(x)=1/x$
7. Exponential $f(x)=2^x$
8. Logarithmic $f(x)=\log x$
9. Quartic $f(x)=x^4$
10. Quintic $f(x)=x^5$

Example of what pages should look like:

Page 1

Quadratic Function (1 point)

$f(x) = x^2$ (1 point)



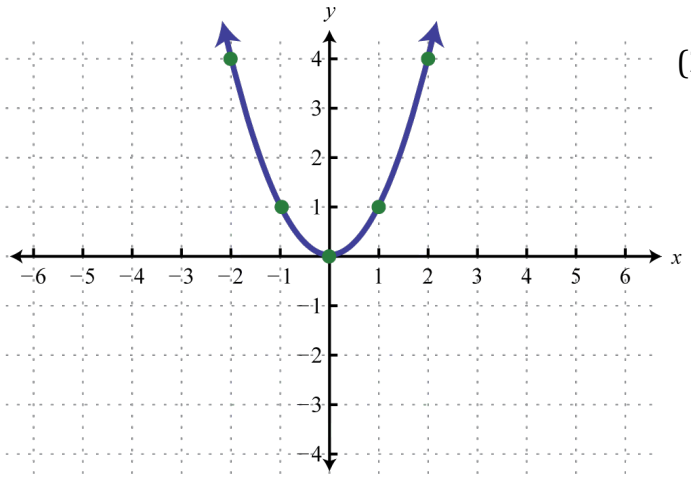
(2points)

Page 2

Domain_____(1pt)
Range_____(1pt)
x-intercepts_____(1pt)
y-intercepts_____(1pt)
Increasing when x is_____(1pt)
Decreasing when x is_____(1pt)
Odd/Even/Neither_____1(pt)
Asymptotes _____(1pt)

(1pt) $f(x) = x^2$

x	$f(x)$
-2	4
-1	1
0	0
1	1
2	4



(2pts)

**Each function worth 15 points.

For extra credit, you may create an electronic form of your booklet using powerpoint, prezi, or any approved app. (extra 15 points)

The book should have a title page, should be neat, colorful, and attached in some way (10 points).

Total points possible 160 points.
This project will be a test grade.