**Parent Functions Homework**

1. State the name of the parent function for each.

a. f(x) = -5(x+1)2 + 9 b. f(x) = -√x + 5 c. f(x) = 2-|2x + 1| - 9

d. y = x e. y = 3x2 f. f(x) = -7

2. What can you do if you happen to forget what the graph of a certain function looks like?

3. Write the equation for each function. Then sketch a graph, and state the domain and range of each.

a. Quadratic b. Radical c. Linear d. Absolute Value e. Cubic

4. Write any function that is in the family of each parent function.

a. Quadratic b. Radical c. Linear d. Absolute Value e. Cubic

5. On the following page, Each student was asked to write something he learned about parent functions. Evaluate the validity of each student’s claim. ONE of the student’s claims is incorrect.

We all make mistakes, but can learn from them!

Help these students to understand parent functions by writing a ***short*** letter to each of them.

Be sure to include the following:

 1. Indicate whether the claim is correct or incorrect, and

 2. IF INCORRECT… Draw a graph of two counter-examples to refute the claim.

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Selected Solutions

1. a. quadratic c. absolute value d. quadratic

2. create and plot a table of values

3. See your notes from class! ☺

4. examples.

a. y = 2x2 – 3x + 87 c. y = 2387x e. 2x3 + 78