Opportunity Cost of a Flip Phone Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

The Choice:

Despite the prevailing opinion in society a smart phone and data plan are a financial choice. There is an ongoing debate whether a smart phone is a luxury good or a necessity. Luxury goods are consumption goods that are expensive, ornamental or otherwise difficult to obtain and are typically accessible only to the wealthy. Luxury goods can be functional, like cars, or nonfunctional, such as jewelry. They are often indicators status. The vast majority of people in society make the choice of owning this potential luxury good but are they looking at the opportunity cost?

1) Do you think that a smart phone and data plan are a luxury good? Why or Why not?

Cell phone companies still offer “dumb” phones. They typically are free with the renewal of the cell phone contract and come with much cheaper talk and text plans. Mr. Benz paid nothing for his flip phone and pays $15 a month (rounded up) for a unlimited talk and text plan.

2) Write a sequence for the total cost of first five months of Mr. Benz’s flip phone and plan.

3) Is this an arithmetic or geometric sequence? Explain.

The cheapest used cell phone on the internet is $100 and the cheapest data plan costs $55 a month.

5) Use the information above or the cost of your phone and plan to write the sequence of the total cost of the first five months of your cell phone and data plan.

Calculating the Opportunity Cost

Opportunity cost is defined as the value of a choice compared to the alternative choice. In this situation we are going to calculate the opportunity cost of a flip phone and a smart phone.

6) Calculate the difference in the total cost of a smartphone and a flip phone after one year. Explain what this number means in term of the opportunity cost.

7) Supposed instead of investing money in a smartphone, you invested the savings after one year into a CD (certificate of deposit) which has a 4% interest rate for 5 years compounded quarterly. Explain this number in terms of opportunity cost.

8) Supposed instead of investing money in a smartphone, you invested the savings after one year into the stock market which has a 7% interest rate for 30 years compounded continuously. Explain this number in terms of opportunity cost.

9) Go to Investor.gov, and click on the additional resources, then click the red box entitled “Calculate Compound Interest”. Type into the online calculator as if you were going to “pay yourself” for the smart phone plan, starting at $100, adding $55 a month for 30 years at 7%.

What is the opportunity cost of a phone? Explain using BOTH lines on the graph and by interpreting the numbers they represent.