MATH 111 - Calculus and Analytic Geometry I

Lecture 1 Worksheet

Fall 2020 **Subhadip Chowdhury** **Aug 19**

Title: Chapter 1 - Review of Functions I

Summary: Most of these concepts are discussed in sections 1.1 and 1.2 of your course textbook (we will return to the concept of one-to-one function in section 1.4 and will discuss on Friday). See Moodle for a pdf copy of the text, or you can view it online at https://openstax.org/details/books/calculus-volume-1.

§A. Discussion Questions

When you are finished with your Powerpoint activity, see if you can answer the following questions.

- What was your strategy for choosing the correct matching?
- Which options were easiest for you to find, and why?
- Which options where hardest for you to find, and why?
- In your own words, what is a function?
- How can something fail to be a function?
- What is an odd function?
- What is an even function?
- What does $f(1) = 2$ mean?
- What does $f(x) = a$ mean?
- What is the domain of a function?
- What is the range of the function?
- What does it mean for a function to be periodic?
- Did you have anything that matched with option Q ("none of the above")? Why do you think that is the case?
- What did you learn about the absolute value of x?
- A function that has different formula on different part of its domain is called a piecewise-defined function. Which of the above were piecewise-defined functions?[1]
- Provide a graphical example of something that is not a function.
- Provide an example of a function described in words.
- Provide a table that gives an example of something that is not a function.
- What questions do you have after completing this activity?

[1] Check https://www.desmos.com/calculator/tk34ppdohh to see how to graph piecewise functions in Desmos.