## Chapter 1: Review of functions.

Technically a student coming into a Calculus class is supposed to know both Algebra and Trigonometry. Therefore the intent of this chapter is to do a very cursory review of some algebra and trigonometry skills that are absolutely vital to a calculus course.

Note that even though these topics are very important to a Calculus class I rarely cover them in the actual class itself. **I leave it to the students to read this chapter on their own**. I always provide guidance on how to tackle topics in this section and test if students have actually done the reading at the end of the time allocated to this cause.

As students of this calculus class you are expected to read the following topics on your own or discuss in your groups;
1. Inverse Functions
2. Trigonometric Functions/ Equations
3. Exponential and logarithmic Functions/Equations
4. Review of common graphs.

Refer to pages 23-88 of the guiding book (Calculus Textbook) provided on *muele.mak.ac.ug*.

At the end of this chapter you are expected to know the following;
1. How to determine roots of functions.
2. What domain and range of a function is.
3. How to find domain and range of a function.
4. How to find composition of 2 or more functions.
5. How to find inverse of a function.
6. How to solve trigonometric Functions/Equations with calculators or without calculators.
7. How to solve exponential and logarithmic equations.
8. How to sketch most of the common graphs.

As we all know practice is key for any mathematics course, so as we go through the different sections, do the following questions plus many more you might come across.

1. Root of Functions: Problems 11, 15 & 17.
2. Range and Domain: Problems 19, 20, 22, 28, 30 & 31
3. Function Composition: Problems 35 & 36
4. Inverse Functions: Problems 4, 6 & 8
5. Trigonometric Equations: Problems 7, 11 & 12. Set 2: Problems 8 & 11
6. Exponential and Logarithmic Equations: Problems 2, 4, 7, 8, 13 and 15.

Refer to the guiding book (Calculus_Practice_Questions) provided on *muele.mak.ac.ug*.

NOTE:
1. We have exactly 2 weeks to have finished reading this chapter and on **Wednesday 19th/02/2020** we shall have our **first test** covering this chapter.
2. I am suggesting you go through the chapter in groups for better understanding of concepts.