



PATTISON HIGH SCHOOL

We don't teach a class; we teach individual students in a class

Pre-Calculus 12

WINTER Period 3
2020

Mr. Joel
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Description

A study in Pre-Calculus 12 will help you form connections between members within a family of functions and how an overarching transformation exists for all. In this course we will study how to transform functions before moving onto Polynomials, Exponential and Logarithmic, and finally Trigonometric functions. Students should by the end of this course be capable of modelling real world situations and knowing each respective limitations.

Learning and understanding mathematics is a skill that takes time and patience to master. Continual hard work will be needed to excel in this course.

Overview

Function Transformations

The single most important section of Pre – Calculus 12 as the knowledge from this chapter will carry forth into ALL subsequent chapters. BE SURE TO KNOW THIS BY HEART!!!

Polynomial Functions

A revisit to the linear and quadratic functions but also presents them as a subset of those with a higher order. Knowing some tricks here will help with graphing all polynomials.

Exponential Functions

Seeing how exponential growth can really and very quickly become quite a large number. Understanding in magnitudes of scale in the Chapter will allow you put some measurements in perspective.

Logarithmic Functions

Given that exponential functions are difficult to manipulate, its inverse is used in real world situations. Always check to see if the scale used is logarithmic.

Trigonometric Functions

Fully introduce the trigonometric functions seen in grade 11 under a different measuring system and presenting their graphs

Trigonometric Identities

This is the study on how the various trigonometric functions can be combined and manipulated into expressing different forms but identical functions. Highly important skillset in Calculus.

Expectations

It is expected that you arrive to class on time and ready to work. There is limited time in a semester and every minute should be utilized fully. Every student in my classes are trying to achieve their potential and to best do so, a respectful and caring environment is required. As participants of my class, I will maintain the expectation that the learning environment is cared for by all its members.

Assessment & Evaluation

Category	Timeline	Weight
Homework	Daily	10%
Quiz	Weekly (at random)	10%
Chapter Test/Project	When Appropriate	20%
Extension Question	Bi/Tri-Weekly	15%
Midterm	Week 6-7	20%
Final	Week 14-15	25%

During homework, one should self-assess against the solutions to be sure of their understanding. Upon the return of Chapter Tests, the correction marks present a chance of self and peer-assessment as well.

Materials and Resources

The following are materials that will help you succeed in this course.

1. USB – for storing digital text
2. Binder – for organizing the paper-based materials given
3. Paper – for taking notes (recommended due to the number of diagrams that will appear)
4. New workbook – the workbook form which we will be working from
5. Pen/Pencil – for taking notes
6. Calculator – you'll only be allowed to use a scientific calculator