Pre-Calculus 12 Mr. Sivertson

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Welcome to Pre-Calculus 12. This course is intended to develop your ability to analyze and problem solve using algebraic and graphical methods in preparation to study calculus in college or university. You will be expected to use both methods in various situations. The topics we will be covering this semester are:

* + - Sequences and Series
      * Arithmetic Sequences and Series
      * Geometric Sequences and Series
      * Infinite Geometric Series
    - Transformations
      * Operations on Functions
      * Translations, Reflections, Expansions, and Compressions
      * Inverse Functions
    - Polynomials
      * Graphing Polynomial Functions
      * Solving Polynomial Equations
    - Radicals and Rationals
      * Graphing Radical and Rational Functions
      * Solving Radical Equations
    - Logarithms
      * Graphing Logarithmic Functions
      * Properties of Logarithms
      * Solving Exponential and Logarithmic Equations
      * Applications of Exponential and Logarithmic Functions
    - Trigonometry
      * Angles in Standard Position
      * Exact Values of Special Angles
      * Trigonometric Ratios in Radians
      * Graphing Trigonometric Functions
      * Solving Trigonometric Equations
      * Proving Trigonometric Identities
    - Conics
      * Circles
      * Parabolas
      * Ellipses
      * Hyperbolas

The material will be learned through classroom discussion, textbook assignments, worksheets, homework and quizzes. Your mark will be determined approximately by Classroom Assessment (20%), Unit Tests (50%), and a Final Exam (30%).

Corrections on assignments can be done for full marks provided they are completed and handed in **before** the unit test. Corrections on assignments must be done on a separate piece of paper, stapled to the front of the original assignment, showing a full understanding of the question. Graphs must be done on graph paper. No late assignments will be accepted. Late assignments will be given a mark of 0.

There will be no retests given. However, at the end of the course I will drop your lowest test score. It is your responsibility to prepare adequately for the tests so that you receive the grade you will be happy with.

Your final mark will be given as a percentage, with the following provincially mandated letter grade:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| A | B | C+ | C | C- | I/F |
| 100% - 86% | 85% - 73% | 72% - 67% | 66% - 60% | 59% - 50% | 49% - 0% |

It is your responsibility to make up any missed work, be sure to get notes from a classmate. I record what was accomplished in class on the Math 12 blog on my website. On the rare occasion that you miss a test, you will be expected to write the test on the next day that you attend class. There will be lots of time given in class to do assignments, but most people will not be able to complete everything in class, so be prepared to do some Math work each night. Extra help is available, from me in room 217 most lunch periods and before and after school if arranged.

It is expected that you arrive to class on time, prepared to work, with all necessary supplies: a Theory and Problems for Pre-Calculus 12 Mathematics workbook, a notebook, notepaper, graph paper, pen, pencil, eraser, ruler, and scientific calculator (no smart phones please).

To be successful in this course please follow the following guidelines:

* Cell phones should be off and away. Cell phones are an excellent resource for many workplace situations. However, they are also an incredible distraction for many people. The benefits of having a cell phone are negated by its misuse, therefore no phones are allowed in class.
* Do not plagiarize another student’s work. Plagiarism is the act of presenting someone else’s work as if it were your own. This class is about learning how to think. If you simply copy another student’s assignment you will not have learned the material and will most likely do poorly on tests.
* Come to all classes on time, pay attention, and ask questions. You’re here to learn. If you are having trouble following the lesson, ask me to repeat the idea or to do another example. I want you to be successful.
* Complete and hand in all assignments. Sometimes students finish part of an assignment or neglect to hand in an assignment. Not only does this affect your mark directly but you also miss out on feedback that I can give you on your assignment. As well, you will not be allowed to do corrections on your test.