Math 110 – Pre-Calculus Math

Why take Math 110?

MATH 110 is designed specifically to prepare students for entry into calculus courses -MATH 111 or MATH 141. The emphasis is on developing a clear understanding of how functions represent the real world and on strengthening students' algebra skills. In addition, students will learn how to use graphing calculators to solve problems and to represent data. Graphing calculators are very helpful in demonstrating the behaviour of the studied functions, including their rates of change.

Example:

If money doesn't grow on a tree, why does it grow by 'e'?

Suppose a bank offers 100% interest per annum compounded continuously or every hour. What would an investment of \$1 'grow to' in one year? Use the compound interest formula:

$$A = P\left(1 + \frac{r}{n}\right)^{nt} \qquad A = 1\left(1 + \frac{1}{8760}\right)^{8760} = 2.718 \qquad e = 2.71828...$$

Prerequisites:

One of the following: (C or better in one of Principles of Mathematics 12 or Pre-calculus 12) or (both MATH 092 and MATH 093) or (both MATH 094 and MATH 095) or (MATH 096) or (C+ or better in Applications of Mathematics 12) or (at least 55% on the MDPT).

Students from MATH 110 require at least a C+ to take MATH 111 or MATH 141. MATH 111 is required for most first year science programs. MATH 141 is recommended for Business students.

Transferability:

UBC, SFU, Open University, TWU, UVic.

Content:

- A review of necessary algebraic skills.
- An in-depth study of functions: exponential, logarithmic, linear, and trigonometric.
- An introduction to calculus and its 'language'.

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