

My Expectations for Entering MATH 1730 Students
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The following is a list of some specific items I expect you know how to do in Precalculus (MATH 1730) beginning today. If you have trouble in these areas that will generally indicate that you will perform poorly in this course. See me for help or suggestions if you have concerns about these items. Most of these concepts are discussed briefly in Chapter P of our text. See an intermediate algebra textbook or look online (the PSTCC Math Dept. has an online resource called Math Help that you may wish to refer to) for more detailed help.

1. You must be able to factor. This includes factoring the GCF, difference of squares, grouping, and factoring a trinomial as a product of binomials.
2. Algebraic simplifications including combining like terms and making use of the distributive property. Be able to add, subtract, and multiply polynomials.
3. Absolute value.
4. Properties of exponents. Be able to simplify expressions involving exponents.
5. Scientific Notation.
6. Square roots and cube roots. Be able to simplify expressions involving these.
7. Simplifying, adding, subtracting, multiplying, and dividing rational (fractional) expressions. This includes regular arithmetic with fractions.
8. Solve linear equations including ones with absolute value.
9. Solve quadratic equations. You should be able to solve via the quadratic formula (you must know this formula!), by factoring and using the zero-product property, or by extracting roots (square root property).
10. You should be able to model simple relationships including ones involving areas and perimeters of two-dimensional shapes, volumes and surface areas of three-dimensional solids, and the Pythagorean Theorem.
11. You should be familiar with interval notation.
12. Be able to solve linear inequalities and express solutions in interval notation.