

**Youth Initiative High School  
Trimester I 2012  
Precalculus  
Maureen O'Connor**

Algebra I is mostly about number theory and linear functions. Algebra II is about different types of functions: power functions, exponential functions, logarithmic functions, rational functions, and trigonometric functions. Precalculus deepens and expands on students' understanding of all their algebra knowledge. We will review the many algebraic functions including trigonometric. There we will also cover polar coordinates and proofs. Other topics include matrices, vector operations, analytic geometry or conic sections, and sequences and series. The goal of the class is, of course, to prepare students for calculus, but also to improve their analytical reasoning.

Students will be asked to complete a homework assignment for each day's lesson. The purpose of homework is to practice and develop skills and to communicate (on paper) understanding of the lesson. We will experiment with students self grading and/or handing in homework. There will be three tests graded for accuracy and comprehension of chapter concepts. I expect students to come prepared to ask specific questions about their homework and the previous day's lesson. I am available by email. The address is [maureen77@frontiernet.net](mailto:maureen77@frontiernet.net).