

The Mountain School
Precalculus Questionnaire-- Spring 2009

Your student _____ has signed up to take Precalculus during the spring semester of the Mountain School. Your answers to the following questions will help us to place students into sections and develop a curriculum for each section that will best address the needs of each student.

Title of last year's math class _____
 Title of current math class _____
 Text(s) used for current class _____
 Chapters covered in this text fall semester _____
 Chapters to be covered spring semester _____
 What course will this student be preparing to take senior year? _____

If possible, please have your student bring a copy of your school's precalculus text when he/she comes to the Mountain School.

Do you currently use graphing calculators (if so, which)? _____
We have TI83s to loan to students and can arrange for the purchase of calculators.

We use the text *Advanced Mathematics* by Richard G. Brown, Houghton-Mifflin which covers the standard topics for a precalculus course. Since we divide students into sections based on the topics they would cover at their sending schools, it would be very helpful for us to know what is expected at your school—especially what is required for the course they will take their senior year.

Please check below those topics being covered in your class this fall, and those that will need to be covered here at the Mountain School in the spring. Any comments about the rigor with which topics are treated would also be helpful. If you use Brown, it is sufficient to list the chapters covered each semester.

fall 08

spring 09

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|-------|-------|--|
| _____ | _____ | properties of real numbers |
| _____ | _____ | linear functions and their graphs |
| _____ | _____ | systems of linear equations |
| _____ | _____ | direct and inverse variation |
| _____ | _____ | quadratic functions and their graphs |
| _____ | _____ | complex numbers |
| _____ | _____ | solving quadratic equations |
| _____ | _____ | polynomial functions and their graphs |
| _____ | _____ | synthetic division |
| _____ | _____ | linear inequalities |
| _____ | _____ | quadratic inequalities |
| _____ | _____ | functions and relations |
| _____ | _____ | composite functions |
| _____ | _____ | stretching and translating graphs of functions |
| _____ | _____ | inverse functions |
| _____ | _____ | exponential equations |
| _____ | _____ | exponential functions and graphs |
| _____ | _____ | logarithmic equations |
| _____ | _____ | logarithmic functions and graphs |
| _____ | _____ | exponential growth and decay |
| _____ | _____ | coordinate proofs |
| _____ | _____ | conic sections (circles, ellipses, parabolas) |
| _____ | _____ | conic sections (hyperbolas) |

