

# Special Topic Review Sessions

The Math Tutorial Lab is hosting a series of review sessions to help students get off to a great start in their math courses this fall. Descriptions of the topics are at the bottom, but the actual content of the session will be determined by the students that come and the questions students ask. If you have questions, contact Cynthia Farthing, Director, Math Tutorial Lab, [cynthia-farthing@uiowa.edu](mailto:cynthia-farthing@uiowa.edu).

**Schedule (All sessions are held in the Math Tutorial Lab, 125 MacLean Hall.)**

	10:30-11:30	11:30-12:30	1:30-2:30	2:30-3:30	3:30-4:30
<b>Tuesday</b> 8/29		<i>Factoring &amp; Solving Quadratic Equations</i>			
<b>Wednesday</b> 8/30			<i>Simplifying Expressions</i>		<i>Functions Review</i>
<b>Thursday</b> 8/31	<i>Trigonometry Review</i>			<i>Fractions Review</i>	
<b>Tuesday</b> 9/5		<i>Functions Review</i>			
<b>Wednesday</b> 9/6	<i>Factoring &amp; Solving Quadratic Equations</i>			<i>Trigonometry Review</i>	
<b>Thursday</b> 9/7		<i>Fractions Review</i>			<i>Simplifying Expressions</i>

## Description of Topics

### *Factoring & Solving Quadratic Equations*

This session will review techniques for factoring linear, quadratic and cubic polynomials. These techniques include factoring polynomials of the form  $ax^2 + bx + c$ , differences of squares, sums/differences of cubes, and factoring by grouping. This session will also review how to solve a quadratic equation by factoring and by using the quadratic formula.

### *Simplifying Expressions*

This session will cover when and how to combine like terms. This session will also review laws of exponents, roots, exponentials and logarithms.

### *Fraction Review*

This session will review how to add, subtract, multiply and divide fractions. It will also review how to add and multiply rational expressions (fractions where the numerators and denominators are polynomials).

### *Function Review*

This session will review the definition of a function, the vertical line test, the domain and range of a function, and function composition. Examples included in the session will focus on how to determine whether a relation is a function and how to find the domain and range of a given function.

### *Trigonometry Review*

This session will give an overview of the six basic trigonometric functions and how these trigonometric functions are defined in terms of a right triangle. The session will also discuss how to convert an angle from degrees to radians and how to use the unit circle to find sine, cosine and tangent of an angle. A brief introduction to graphs of trigonometric functions will also be covered.