

The Quantitative Learning Center Spring 2009 Review Workshops

All sessions are held in the QLC on the second level of Neilson Library from 4-6pm. In general, Karyn Nelson will present material on Mondays and Cat McCune will present material on Wednesdays.

Monday February 2: Basics of Lines. Graph a line from an equation in point-slope form, slope-intercept form, or standard form. Obtain the equation of a line from a graph. Change from one equation form to another equation form.

Wednesday, February 4: Triangle Basics. The basics of using triangles and trigonometry to find unknown quantities. Similar triangles. Review of basic trigonometric functions in terms of right triangles.

Monday, February 9: Simultaneous Equations and Intersecting Lines. Solving a set of equations containing multiple variables. Use substitution method and elimination method to find exact value of variables.

Wednesday, February 11: Trigonometric Functions. Define trigonometric functions in terms of the unit circle. Graphing the sine, cosine and tangent functions. Determine the amplitude, period, and phase shift of sinusoidal functions. Review some identities and inverse trigonometric functions.

Monday, February 16: Derivatives. Review differentiation formulas: the power rule, the product rule, the quotient rule, and the chain rule. Differentiate exponential, logarithmic, and trigonometric functions.

Monday, February 23: Properties of exponents and logarithms. Review the properties of exponents (negative exponent rule, zero exponent rule, product rule, power rule, quotient rule, products raised to powers, quotients raised to powers) and properties of logarithms (product rule, quotient rule, power rule, change of base property).

Wednesday, February 25: Graphing Exponential and Logarithmic Functions. Derive a formula of an exponential function with 2 known points. Finding the domain of a logarithmic function. Show that exponential and logarithmic functions are inverses.

Monday, March 2: Basics of Integration. Define integration. Properties of integrals. Definite and indefinite integrals.

Wednesday, March 4: Integration by Substitution. Integration using the method of substitution, sometimes called u-substitution.

Monday, March 9: Integration by Parts. Integration by parts.