

Math Center Tutor Exams:

In order to apply for a tutoring position in the Math Center, a student must take two math proficiency exams. The first exam deals with algebraic concepts and the second exam is a review of calculus concepts.

The exams do not have to be taken at the same time or on the same day; neither exam is timed. Books, notes, and calculators are NOT allowed on either exam. Students are encouraged to show as much work as possible on both exams.

Below is study guide.

Review for Algebra Portion of Tutor Exam

The problems on this test are from the text is *Algebra and Trigonometry*, 4th edition, Michael Sullivan, Prentice Hall. There is a copy in the Math Lab that you may use if you wish, but it cannot leave the room.

- Word Problems: $d = rt$, chemical solutions
- Probability
- Functions (inequalities, solving equations and systems of equations, solution sets)
- Graphing Functions (lines, circles, conics)
- Algebra Rules (exponents, square roots, logarithms, fractions, order of operations, properties, quadratic formula)

* Note: You may want to read through the Math 128 textbook to aid in your studying. The book currently in use is *Algebra and Trigonometry*, 4th edition, Michael Sullivan, Prentice Hall.

Review for Calculus Portion of Tutor Exam

The problems on this test are from the Harvard method of teaching calculus. If you are unfamiliar with this style, consult *Calculus* by Deborah Hughes-Hallett, Andrew M. Gleason, et al. There is a copy in the Math Lab that you may use if you wish, but it cannot leave the room. Make sure you know the following:

- Setting up equations from information given in word problems
- Interpreting derivatives, integrals and their graphs
- Integrating trigonometric functions
- Relative maximas and minimas
- Inflection points
- Integration by parts
- Integration using substitution