

Study guide for Midterm 02

Midterm problems include both the lecture contents and homework problems.

1. Review study guide for quiz 05-07 (section 14.2-14.7). In particular, pay attention to the items listed in the study guides but did not appear in the quizzes (due to time constraint). Also note that study guide for quiz 06 has been updated to v02.
2. Section 14.8: Review all cases for the method of the Lagrangian multipliers. For example, extreme values of
 - functions of 2 variables, with 1 constraint.
 - functions of 3 variables, with 1 constraint.
 - functions of 3 variables, with 2 constraints.

Pay attention to number of equations and number of unknowns in each case.

3. Section 14.9: Review the derivation of Taylor's formula for functions of two variables and its generalization to three or more variables. Memorize the results.