

Homework #1

Due: Thursday, January 22, 2009

Solve problems 23 through 36 on the problems list. Those of you who already solved these problems in Analysis I should just resubmit the graded solutions from then.

Problems 30, 32, and 35 are for extra credit. However, I very strongly recommend that you at least attempt these problems.

For the binomial series, you can use any mathematical handbook, such as the online Mathworld

<http://mathworld.wolfram.com/>

to look up its coefficients. Alternatively, you can set the appropriate value of α in Problem 2 and use its result. You do not need to solve Problem 2.

Group Project 1: Solve problems 37 and 38. Up to three members in a group, 30 points, split among the members.

Group Project 2: Solve problem 39. One or two members per group, 20 points, split among the members.

Please turn the group projects in separately from the regular homework. Unlike the homework, I would prefer if you typed your projects in Latex. Let me know how you want your points divided. There is no limit on the number of groups working on one project. You can turn group projects in at any time.