Math 192r, Problem Set #2
(due 9/25/01)

1. Find necessary and sufficient conditions for the infinite product $f_1 f_2 f_3 \cdots$ to converge in the ring of formal power series. Be sure to take proper care of degenerate cases, e.g., where one of the f_n's actually is 0. A detailed proof is not required.
2. By comparing the expansions of $1/(1-x-x^2)$ and $1/(1-x-y)$, derive a formula for the Fibonacci numbers as sums of binomial coefficients.

Please be sure to write down how many hours you spent working on the assignment, and whom you worked with (something you should do on ALL your assignments for this course).