COS 341, December 3, 1997
Handout Number 23

Extra Credit Homework Set II

This optional homework set is worth 5% on top of the regular total scores (the sum of exams and homeworks). If you decide to do it, you need to hand in your solutions on December 10 in class.

Problem 1
(a) Let $i_0 = 4$. For all $n > 4$, let

$$h(n) = \sum_{i_0 \le i \le n} \frac{1}{i \ln i}.$$

Determine the asymptotic behavior of $h(n)$ for large n up to an additive term $O(1)$. (Hint: the derivative of $\ln \ln x$ is $1/(x \ln x)$.)
(b) In Handout #20, do Problem 35 (page 491).

Problem 2 In Handout #20, do Problem 50 (page 493).