

Homework Assignment #9
Due: October 22, 9:30 a.m.

1.

- (a) Use the definition of Ω to show that $n^2 - 7$ is $\Omega(n^2)$. (I want you to explicitly give the values of C and k that could be plugged into the definition of Ω for these functions.)
- (b) Show that $\log(n/7)$ is $\Omega(\log n)$.
- (c) Show that $\sum_{i=1}^n i \log i$ is $\Theta(n^2 \log n)$. (Hint: to get a lower bound on the sum, look at the last half of the terms.)