

Homework 11 - Asymptotic Run Time

CS241

Asymptotic Run Time

**read example 4.3.7

1. Answer 3 questions from: section 4.3: 3, 5, 7**, 9, 15, 16, 26.
2. Answer 3 questions from: section 4.3: 33, 34**, 35**, 47, 48, 57, 62.
3. Prove one of the following:
 - (a) Prove: $3^n \in \omega(2^n)$ (that is; show $3^n \in \Omega(2^n)$ and $2^n \notin \Omega(3^n)$)
 - (b) Prove: $n^4 \in o(n^{4.1})$ (that is; show $n^4 \in O(n^{4.1})$ and $n^{4.1} \notin O(n^4)$)