Instructors: Erik Demaine, Jason Ku, and Justin Solomon

Problem Set 1

Problem Set 1

Name: Kim Heesuk

Problem 1-1.

- (a) $f_1 = \log n^n = n \log n \in O(f_2)$, $f_3 = \log n^{6006} = 6006 \log n \in \Theta(\log n)$. So that $f_3 \in O(f_1)$. Meanwhile $f_4 \in O(f_2)$, and $f_5 \in O(f_3)$, the answer is $(f_5, f_3, f_1, f_4, f_2)$.
- **(b)**
- **(c)**
- **(d)**

Problem Set 1

Problem 1-2.

- (a)
- **(b)**

Problem Set 1 3

Problem 1-3.

4 Problem Set 1

Problem 1-4.

- (a)
- **(b)**
- **(c)**
- (d) Submit your implementation to alg.mit.edu.