PURDUE UNIVERSITY · CS 580	
Introduction to the Analysis	OF
Algorithms	

HOMEWORK Jun Cheng January 24, 2016

Problem 1:

Using master theorem:

$$a = 4$$

$$b = 4$$

$$f(n) = n \log n$$

Then

$$\log_b^a = 1$$
$$f(n) = \Omega(n^{\log_b^a - \epsilon})$$

Therefore,

$$T(n) = \Theta(n \log n)$$