

CS5114 Spring 2010 Homework Assignment 5  
Due Thursday, February 25 at 11:00pm  
50 points

1. Manber 6.48
2. Manber 6.50
3. Prove that there is no comparison-based sort whose running time is linear for at least half of the  $n!$  inputs of length  $n$ . What about a fraction of  $1/n$  of the inputs of length  $n$ ? What about a fraction of  $1/2^n$ ?