

CS302 Data Structures
Fall 2009 – Dr. George Bebis
Homework 3
Due Date: 10/6/2009

1. Exercise 8 (page 328)

2. Exercices 18 (page 331)

3. Exercice 41, 42 (page 338)

4. Exercise 12 (page 329)

5. Which is faster and by how much, a linear search of only 1000 elements on a 5-GHz computer or a binary search of 1 million elements on a 1-GHz computer. Assume that the execution of each instruction on the 5-GHz computer is five times faster than on the 1-GHz computer and that each iteration of the linear search algorithm is twice as fast as each iteration of the binary search algorithm.