CS477/677 Analysis of Algorithms
Fall 2007 – Dr. George Bebis
Homework 5
Due Date: 10/30/07

1. **(U-required)** In a student project involving hashing, one student thought that he could mix the keys (integer numbers) well by using a trigonometric function, which had to be converted to an integer index, so he defined his hash function as *abs(sin(k))*. What is wrong with this choice? He then decided to replace the function *sin(k)* by *exp(k)*. Criticize this choice.

2. **(U-required)** Exercise 11.2-1 (page 228)

3. **(U-required)** Exercise 11.2-3 (page 229)

4. **(U-required)** Problem 11.4-1 (page 244)

5. Problem 11-3 (a) (page 250)