Homework Assignment #1

Note

This assignment is due 2:10PM Monday, September 26, 2016. Please write or type your answers on A4 (or similar size) paper. Drop your homework by the due time in Yih-Kuen Tsay's mail box on the first floor of Management Building 2. Late submission will be penalized by 20% for each working day overdue. You may discuss the problems with others, but copying answers is strictly forbidden.

Problems

There are five problems in this assignment, each accounting for 20 points unless otherwise marked. "Exercise A.B" in the following means Exercise B of Chapter A in [Carrano and Henry 2013] (International Edition). See the code listing on Page 47 in the book for a sample of the so-called javadoc style of comments.

1. Exercise 1.1
2. Exercise 1.3
3. Exercise 1.5
4. Exercise 1.7
5. Implement the intersection of two bags as an application of the ADT bag (rather than as an additional method of the ADT). The application function takes two bags as input and returns a new bag that is the intersection of the two input bags. You must use the additional `peek`() (discussed in class, that randomly returns an item in the bag if the bag is not empty, but does not change the bag) instead of the existing `toVector`().