Homework 11

1. Question 3.4.5

Is the following implementation of hashcode() legal?

```
public int hashcode()
{ return 17; }
```

This implementation of hashcode is a legal implementation. It maps objects to an integer value. However, it is a very poor implementation as it maps every object to the same integer, meaning that the hashed objects will not be uniformly spread.

2. One of the following: Fall 2010 Midterm Question 5 or Fall 2012 Midterm Question 6a

Suppose that the following keys are inserted in the order
A B C D E F G
into an initially empty linear-probing hash table of size 7, using the following hash function:

key	hash(key, 7)
A	3
B	1
C	4
D	1
E	5
F	2
G	5

What is the result of the linear-probing array? Assume that the array size is fixed and does not double.

0	1	2	3	4	5	6
G	B	D	A	C	E	F