Section 5: Hashing & Sorting

0. Hash... Browns?

For the following scenarios, insert the following elements in this order: 7, 9, 48, 8, 37, 57. For each table, TableSize = 10, and you should use the primary hash function h(k) = k. If an item cannot be inserted into the table, please indicate this and continue inserting the remaining values.

a) Linear Probing -

Insertion		
0		
1		
2		
3		
4		
5		
6		
7		
8		
9		

Linear Probing -Delete 37, 7, 57 b) Quadratic Probing

0	
1	
2	
3	
4	
5	
6	
7	
8	
9	

c) Separate chaining hash table - Use a linked list for each bucket. Order elements within buckets in any way you wish.

0	
1	
2	
3	
4	
5	
6	
7	
8	
9	

1. Double Double Toil and Trouble

a) Describe double hashing.

b) List 2 cons of quadratic probing and describe how one of those is fixed by using double hashing.

c) Compare open hashing and separate chaining.