CMSC 123 Data Structures
Pen-and-Paper Exercise on Hashing

Given the following input: hash table size m = 23 and
keys = {34, 56, 2, 86, 59, 11, 20, 17, 39, 1, 15}, insert them into the
hash table using:

Linear Probing:	$h(k) = (k \% m + i) \% m$
Quadratic Probing:	$h(k) = (k \% m + i^2) \% m$
Double Hashing:	$h(k) = (k \% m + i*h_2(k)) \% m$
	$h_2(k) = 5 - (k \% 5)$

5 / 5

	Linear Probing	Quadratic Probing	Double Hashing
0			17
1	1	1	1
2	2	2	2
3			
4			
5			
6			
7			15
8			
9			
10	56	56	56
11	34	34	34
12	11	11	
13	59	59	59
14			
15	15	15	11
16	39	39	39
17	86	86	86
18	17	17	
19			
20	20	20	20
21			
22			