## **CPE 202**

Hash Table Collision Strategy Worksheet

1. Using Separate Chaining, hash each of the provided values, in left to right order, into the provided table using the hash function hash(x) = x % 11. For example, hash(83) = 6 so 83 maps to index 6. The calculated index identifies the column the value maps to. The first value to map to a column goes in the first row, use the subsequent rows when there is a collision, first collision goes in the same column *second* row, second collision goes in the same column *third* row, et cetera, to indicate the chaining.

Values = {68, 73, 7, 84, 119, 195, 172}

0	1	2	3	4	5	6	7	8	9	10
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2. Using Linear Probing, hash each of the provided values, in left to right order, into the provided table using the hash function hash(x) = x % 11. For example, hash(83) = 6 so 83 maps to index 6.

Values = {68, 73, 7, 84, 119, 195, 172}

0	1	2	3	4	5	6	7	8	9	10

3. Using Quadratic Probing, hash each of the provided values, in left to right order, into the provided table using the hash function hash(x) = x % 11. For example, hash(83) = 6 so 83 maps to index 6.

Values = {68, 73, 7, 84, 119, 195, 172}

0	1	2	3	4	5	6	7	8	9	10