

Names:

## CSCI 241 Worksheet: Hashing I

1. Write pseudocode to implement the following Set ADT operations for the restricted Set that can only contain the digits 0..10. Assume that the underlying storage is an `int[]` of size 10 called `A`.

```
void insert(int i):
```

```
int contains(int i):
```

```
void remove(int i):
```

2. Evaluate the following modulus expressions:

$12 \% 3$

$14 \% 3$

$8 \% 5$

$3 \% 10$

$10 \% 4$

3. Insert the following values into the hash table in the order given below. Use  $h(k) = k \% 8$  as the hash function, and use chaining for collision resolution.

1, 11, 16, 4, 5, 8, 0, 13

0	
1	
2	
3	
4	
5	
6	
7	