

# Lecture 09 Ticket

COSC 311: Algorithms, Fall 2022

Name: \_\_\_\_\_

1. Suppose  $a$  is an array of binary values of size  $n$ . That is, for every index  $i$ , we  $a[i] = 0$  or  $1$ . Give pseudocode for a procedure that sorts  $a$  in  $O(n)$  time.
2. Each row below represents a 12-bit binary integer (where the right most bit is the 1s bit, etc). Sort the list of numbers in ascending order.

```
110110100110
100110001001
001000101000
101100111001
000010001010
111100011100
101111001100
010100010010
011011100010
```