CS 2711

Assignment 1, Question 2

```
Code:                                Frequency Count:
input n                              1
total1 = 0                           1

for (i = 1; i < n; i++) {            (1, n, n-1)
  input aNumber                       n-1
  if (aNumber > 0) {                  n-1
    total1 = total1 + 1               n-1
  }

  total2 = 0                          n-1
  for (j = i; j <= n; j++) { (n-1,((n(n+1))/2)+n-2,((n(n+1))/2)-2)
    total2 = total2 + j             ((n(n+1))/2)-2
  }
  output total2                       n-1
}
output total1                         1
```

The worst case time complexity is:

$1.5n^2 + 10.5n-9$

The running time is $O(n^2)$ for n>=21, given c=2.