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Lab 2

CPSC 2150

1)

A picture containing text, clock

Description automatically generated

N2

N

Text, letter

Description automatically generated

N3

N2

N

Text

Description automatically generated

N(N-1) / 2

Time Complexity = N2 + N3 + N2 / 2 - N / 2 = O(N3)

Since there are no simultaneous calls or array initialization it the stack, space complexity is O(1).

2)

a) Time Complexity = 1 + 2 + 4 + …. + N / 4 + N / 2 + N = 2N -1 f(n) = 2n -1

Space Complexity = 1