Nathan Juman

Aparna Das

CSC 185

Week 4 Activity: Time Complexity

1.

E1: O(n2)

E2: O(n)

E3: O(log n)

E4: O(n3)

E5: O(n)

2. Fastest to slowest: [ E3, E2, E5, E1, E4 ]

Bonus. Part A (O(log n)) results in 7 loop iterations, while Part B (O(n)) results in 50 iterations. This is because the value of ‘i’ is decreasing exponentially vs. decreasing linearly. For example, after the first loop iteration i is 50 for O(log n) whereas for O(n) i is 98 after the first loop iteration.

3.