Phillip Janowski

CS3130 – Project 1

Part E

|  |  |  |
| --- | --- | --- |
| Nth Term | Iterative Time (nano seconds) | Recursive |
| 5 | 125 | 493 |
| 10 | 141 | 1525 |
| 20 | 220 | 112534 |
| 40 | 374 | 1.66526\*10^9 |
| 45 | 854 | 1.9176\*10^10 |

The iterative formula has a theoretical growth of O(n^2)

The recursive formula has a theoretical growth of O(n^3)