

Answer to Part e

Sequence Length	Memory Use	Time Spent (micro sec)	Time Spent (mm:ss)
50	368 KB	3671	00:00.00
100	484 KB	3446	00:00.00
250	1.1 MB	12400	00:00.01
500	3.3 MB	39786	00:00.04
1000	8.2 MB	150975	00:00.15
1500	19.0 MB	345240	00:00.30
2000	31.6 MB	602028	00:00.60
20000	1.53 GB	79665422	01:19.67

Notes: This shows both a polynomial time and space complexity of at least $O(n^2)$