

Exercise 3

1. Use import matplotlib.pyplot as plt and plot the graph for n and complexity for the following recurrence relations:
  - a.  $T(n) = T(n - 1) + n$
  - b.  $T(n) = T(n - 1) + n^2$
  - c.  $T(n) = T(n - 1) + \log n$
  - d.  $T(n) = T(n/2) + \log n$
  - e.  $T(n) = T(\sqrt{n}) + \log n$
2. Implement Strassen Matrix multiplication