

$$R(2000/1000) = \infty \quad R(4000/2000) = 5.00 \quad R(8000/4000) = 5.40 \quad R(16000/8000) = 3.74$$

Average Ratio ~ 6.22

Order Of Growth = $O(n^{2.58})$

The doubling hypothesis suggests a slightly higher order of growth compared to the $O(n^2)$ from the analysis.