

Question 7.

Algorithms Assignment 1

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1 Listing from smallest to largest complexity

$2\log_{10} 10^{200}$ Constant time

10^{200} Constant time

$n^2 + \sqrt{n}$ Polynomial time

$n^2 + 7\log n^2$ Polynomial time

$n^2 \log 300$ Polynomial time

$n^2 \log n$ Polynomial time

n^4 Polynomial time

$n^4 + n^2 + n^2 \log n$ Polynomial time

3^{n^2} Exponential time