1 Prompt

Show that $\sum_{i=1}^{n} i^2$ is $O(n^3)$.

2 Discussion

$\sum_{i=1}^{n} i^2 \leq \sum_{i=1}^{n} n^2 = nn^2 = n^3$ for $n \geq 1$. Hence, $\sum_{i=1}^{n} i^2$ is $O(n^3)$.