

11. The number of operations executed by algorithms A and B is $40n^2$ and $2n^3$, respectively. Prove briefly that A is better than B, deciding the constant 'c' and n_0 , as defined for Big-O notation. [5 Marks]

A is better than B, because Big-O of A is $O(n^2)$ and Big-O of B is $O(n^3)$.

as n goes bigger than 20, $40n^2 < 2n^3$, this is the.

reason I think that A is better than B.
the graph may be like:

B grows faster.

because the growth rate is not decided by constant 'c' before n, but decided by n.

