

→ TECHNIQUES TO CMC. TIME COMPLEXITY:

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→ Once we are able to write the runtime in terms of size of the input (n), we can find the time complexity.

Ex: $T(n) = n^2 \Rightarrow O(n^2)$
 $T(n) = \log n \Rightarrow O(\log n)$

→ Some tricks to calculate complexity:

1) Drop the constants: Any-thing you might think is: $O(3n) \rightarrow O(n)$

↳ BETTER REPRESENTATION.

2) Drop the non dominant terms: Anything you represent as $O(n^2 + n)$ can be written as $O(n^2)$

3) Consider all variables which are provided as input: $O(mn)$ & $O(mnq)$ might exist for same cases!

→ In most of the cases, we try to represent the runtime in terms of the input which can be more than one in number. Ex:

Painting a park of dimension $m \times n \Rightarrow O(mn)$