

Q1. Big O
Big theta
Big Ω

Big O gives us the upper limit of the case the upper limit (Worst Case)

Big theta gives us the lower bound of the case (Best Case)

Big Ω gives us the combination of both Big O and Big Ω

Big (o) notations helps us to understand the worst case of a given algorithm it is generally represented as.

$O(1) \rightarrow O(\log n) \rightarrow O(n) \rightarrow O(n \log n) \rightarrow O(n^2) \rightarrow O(n^{\log n})$

where $O(1)$ is best.