PROPERTIES OF BIG-OH NOTATION

1. For big-Oh, only the dominating summand matters. For example , $O(n^4 + n^2 + 64) = O(n^4)$. It can be observed that all terms other than the highest degree are ignored.

2. In addition, in the big-Oh notation, constant factors are not significant. For example, $O(3n^5) = O(n^5)$. In general, $O(k. g(n)) = O(g(n))$, where $k \neq 0$.

3. Big -Oh can be used to express tight bounds. A bound is called a tight bound or least upper bound if the difference between the actual and bound function is a constant . For example , n^2 cannot be expressed as $O(n^3)$. It should only be expressed as $O(n^2)$ as it is the best fit. In this case it is called a tight fit or the least upper bound.