

Asymptotic Notations: Big O, Big Omega and Big Theta Explained

We'll talk a little bit about asymptotic notation. We talked about order. We talked about ordering. We have primarily 3 types of asymptotic notation: big O, big Theta (Θ) and big Omega (Ω). Big O is represented by capital (O), which is in our English. Big O is set to be $O(g(n))$ if and only if there exist a constant (c) and a constant n -node such that $0 \leq f(n) \leq cg(n)$ is $O(g(N))$. If you watch this video completely then I guarantee that you will understand these three notations. Mathematically, mathematically this function can be anything. When we do analysis of algorithms comparing any 2 algorithms then $f(n)$ will be time and what is n , it's input ok, size of input. $G(n)$ is your function which will come inside the big O. $O(n^2)$ is Anything Can Be Algorithm it is $g(n)$ that will be here and which is your algorithm. If you guys can find any such constant (C) and (n) -node, then $f(n)$ is $O(g(n))$. This is the mathematical definition of big O. If you can't find it then it is not $f(n)$ is O. This question is its own truth, it has validity, it will remain valid. This passage discusses the complexity of an algorithm, which is measured in terms of the size of its big O graph. The author states that the complexity of an algorithm is automatically $O(n^5)$, $O(n^{30})$, and $O(n^{100})$. $O(n)$ is intersecting with $f(n)$. So you will get some complex function. Alright so this is the solution to the problem. So. What we have done is WE have taken a big function and we have made it so that it is always below the original function and that's what [UNK] means. The definition of [UNK] for a function. $F(n)$ is the largest value of $G(n)$ that is bigger than $f(n)$.