

0.1 Big O and little- o notation

0.1.1 Big O notation

In big O notation we are interested in the size of a function as it gets larger. We ignore constant multiples.

$$cx \in O(x)$$

And addition of constants.

$$cx + b \in O(x)$$

If there are two terms and one is larger, we keep the largest.

$$x + x^2 \in O(x^2)$$

More generally we write:

$$f(x) \in O(g(x))$$

0.1.2 Little- o notation