* Little omega :-

As we know big omega was giving the lower bound. This little omega will also going to give lower bound. But it will not be tight. So, it's gonna be like loosely lower bound.

Eg:- ~~$f = \omega(g)$~~

$$f \lim_{N \to \infty} \frac{N^3}{N^2} = \lim_{N \to \infty} \quad N = \infty$$

Big Ω

$f = \Omega(g)$

this means

$f \geq g$

lower bound.

\$ It is giving a lower bound. It can increase more than that \$

little ω

$f = \omega(g)$

this means

$f > g$ (strictly greater) difference.

Maths:

$$\lim_{N \to \infty} \frac{f(N)}{g(N)} = \infty$$

Q When do use this?

Ans

When you want something like strictly greater or strictly less than etc.

Note: In reality we use Big-Oh notations only.