

What is the time complexity of,  $f(n) = n + 4$

What is the time complexity of given function?

$f(n) = n + 4$ .

Solution:

Given,

$$f(n) = n + 4$$

- $n + 4 \geq n + 4$
- $n + 4 \geq n$ , where  $n \geq 1$
- $n + 4 \geq n$ , for all  $n \geq 1$

$$f(n) \geq n, \text{ for all } n \geq 1$$

Compare with the standard Big omega notation equation that is,

$$f(n) \geq c * g(n), \text{ for all } n_0 \geq n$$

Here,

$$g(n) = n,$$

$$c = 1$$

$$n_0 = 1$$

- $f(n) = \Omega(g(n))$
- $f(n) = \Omega(n)$