

Ω -notation (lower bounds)

O-notation is an *upper-bound* notation. It makes no sense to say f(n) is at least $O(n^2)$.

$$\Omega(g(n)) = \{ f(n) : \text{there exist constants} \ c > 0, n_0 > 0 \text{ such} \ \text{that } 0 \le cg(n) \le f(n) \ \text{for all } n \ge n_0 \}$$

EXAMPLE:
$$\sqrt{n} = \Omega(\lg n)$$
 $(c = 1, n_0 = 16)$