Para cada uma das funções abaixo, diga a sua ordem - Notação **O(f(N))**)

1. **O(N)**

**def F1(N):**

**s, i = 0, 1**

**while i < N:**

**s = s + N \* N**

**i = i + 1**

**return s**

1. **O(log N)**

**def F2(N):**

**s = 0**

**while N > 0:**

**s = s + N \* N**

**N = N // 2**

**return s**

1. **O(N)**

**def F3(N):**

**if N < 1: return 0**

**return N + F3(N - 1)**

1. **O(N.log N)**

**def F4(N):**

**s = 0**

**for i in range(N):**

**t, j = 0, 1**

**while j < N:**

**t = t + i \* j**

**j = j \* 10**

**s = s + t**

**return s**

1. **O(log n)**

**def F1(n):**

**s, i = 0, 1**

**while i < n:**

**s = s + n \* n**

**i = i \* 10**

**return s**

1. **O(n)**

**def F2(n):**

**s = 0**

**while n > 0:**

**s = s + n \* n**

**n = n - 1**

**return s**

1. **O(n)**

**def F3(n):**

**if n < 1: return 0**

**return n + F3(n - 1)**

1. **O(log2 n) = O(log n). O(log n)**

**def F4(n):**

**s, i = 0, 1**

**while i <= n:**

**s = s + F1(n)**

**i = i \* 10**

**return s**

1. **O(n.log n)**

**def F5(n):**

**s, i = 0, 1**

**while i <= n:**

**s = s + F2(n)**

**i = i \* 10**

**return s**