Data Analy's & Algorithm 1 1 1 1 100 2281718

Hands on - 3

Here or is Constaint

(M) = (N°M) =

1) Find the suntime of algorithm Mathematically: (15 = (MT).

The given function function x=f(n)

X=1; for "= In

fox 3=1; n

X2X+1;

In this inner loop kans is to n In this outer loop turns is ton

Here, Total no. of executions is X=X+1; from the above one we can expressed as;

 $\sum_{i=1}^{n} \sum_{j=1}^{n} 1 = \sum_{i=1}^{n} n = n \times n = n^2$

i. The function runs ((n2)