a) Find the time complexity for the following scenarios.
i) for(i=1; i<=n; i++);
    for(j=i; j<=n; j++);
      printf("Hi");

Solution:
n + (n-1) + (n-2) + ..... + 2 + 1 -> This number of times the loop will run
Summation of the above series will be
n(n - 1)/2
= (n^2 - n)/2
= n^2 (getting only the highest order)
O(n2) -> Answer



ii) for(i=1; i<=n; i*=3);
     for(j=1; j<=n; j++);
       printf("Hi");

Solution:
(1 + 3 + 9 + 27 + ..... + 3(n-1))n -> This number of times the loop will run
Summation of the above series
= n(n-1)log 3
= n2 (Getting only the highest order)
O(n^2) -> Answer