

Assignment 1 | 24th December 2020

Question 1

1) Find the time complexity for the following scenarios:

a)

```
for (i=1; i<=n; i++)  
    for (j=1; j<=n; j++)  
        printf("Hi");
```

b)

```
for (i=1; i<=n; i*=3)  
    for (j=1; j<=n; j++)  
        printf("Hello");
```

Answers:

1)

a) Time complexity is $O(n^2)$

b) Time complexity is $O(n \log n)$