

ASSIGNMENT - 1

1) a) for ($i=1$; $i \leq n$; $i++$) $\rightarrow n$ times
for ($j=1$; $j \leq n$; $j++$) $\rightarrow \frac{n \text{ times}}{n^2}$
printf ("Hi");

$$T(n) = O(n^2)$$

b) for ($i=1$; $i \leq n$; $i*=3$) $\rightarrow (\log n)$ times
for ($j=1$; $j \leq n$; $j++$) $\rightarrow n$ times
printf ("Hello");

2
1 81
 243
3
9
27

~~$T(n)$~~ $T(n) = O(\log n) + O(n)$