

**QUESTION :**

Find time complexity  $T(n)$  for the following code snippet:

```
a = 1;
b = 1;
while(b < n)
{
    a += 1;
    b += a;
    cout<<"Hi";
}
```

**ANSWER:**

The Time complexity  $T(n)$  is :  $O(n)$  i.e., Big O of  $n$

Because , the while loop gets executed 'n' number of times and hence complexity is  $O(n)$