

Master Data Structure and Algorithms With C++

Day 1 Assignment

1. Find the time complexity for the following code snippet:

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

$T(n) = O(\sqrt{n})$

2. Find the time complexity for the following code snippet:

```
for(i = n; i >= 1; i = i/3)
    cout<<"Hi";
```

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