Question 1

What is the time complexity T(n) for the following code snippet?

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

Ans: Linear time due to a single loop so time complexity O(n)

Question 2

Write the output for the following recursive code snippet for n = 3:

```
void fun(int n)
{
   if(n > 0)
   {
      cout<<n;
      fun(n - 1);
      cout<<n;
   }
}
```

Ans: Due to the recursive function and the last print output this always put out a palindrome.

Example: if n=3 -> it will output: 321123