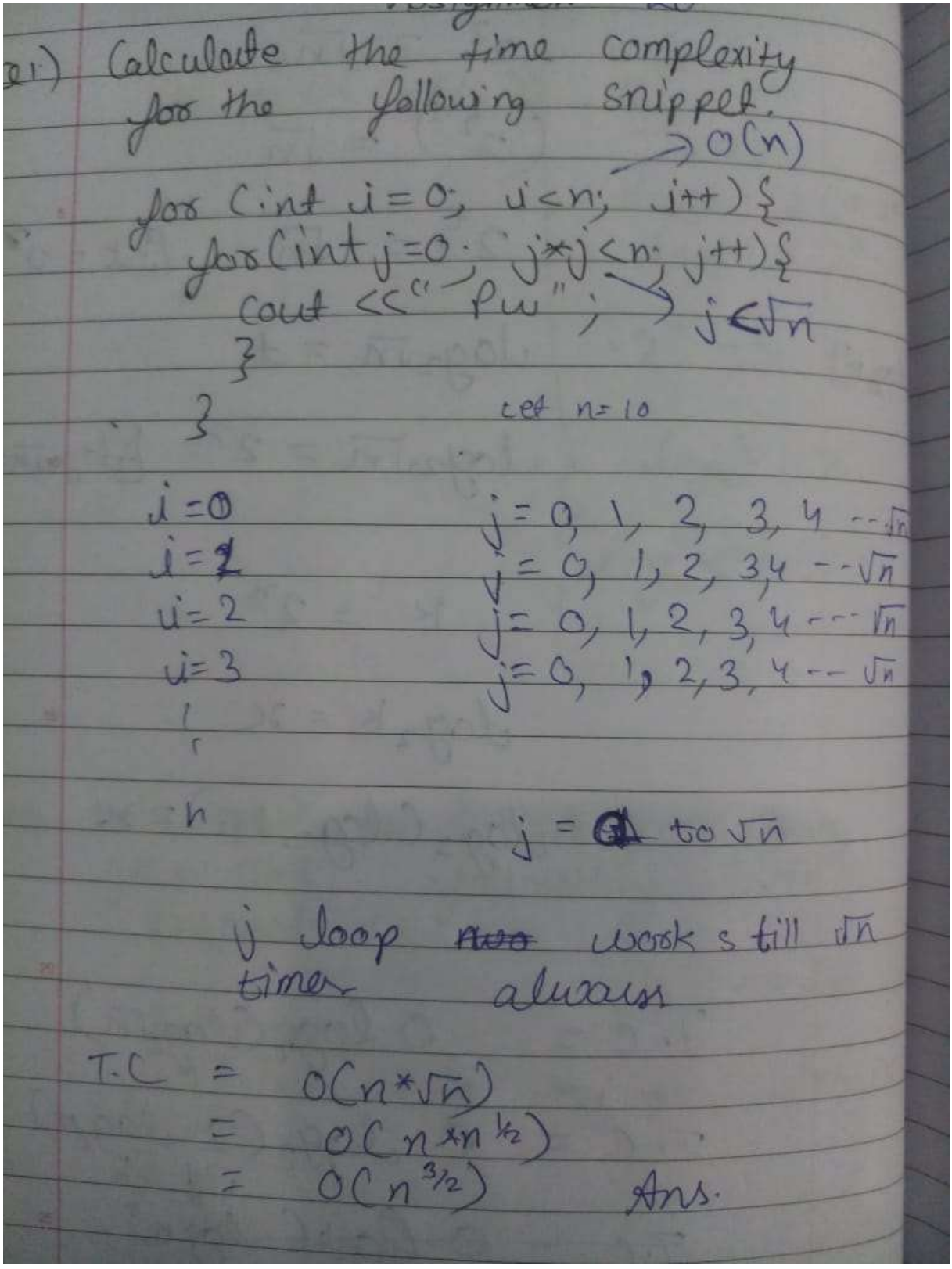
C++ Assignments | Time and space complexity analysis - 2 | Week 8

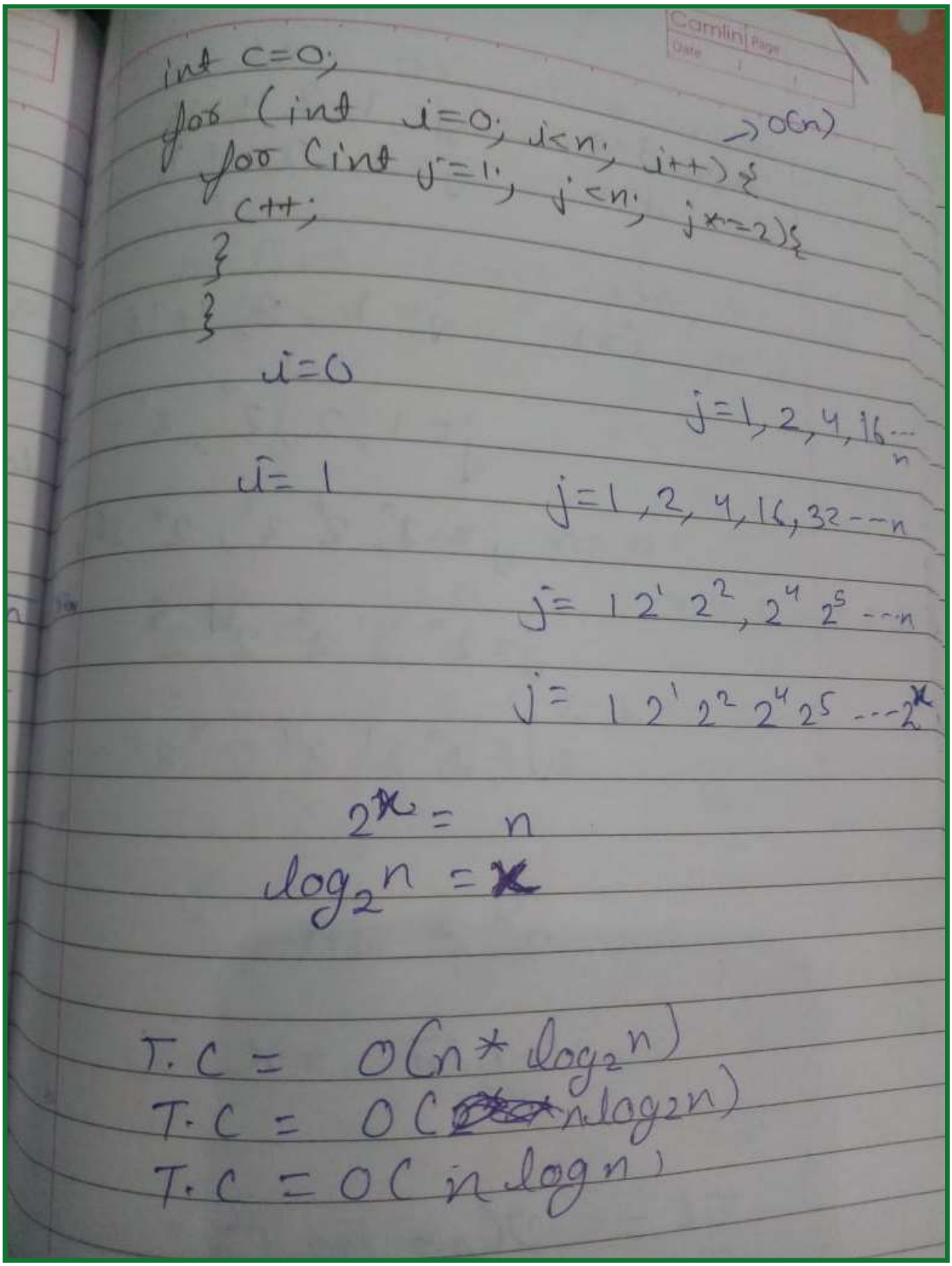
1. Calculate the time complexity for the following code snippet.

```
for(int i = 0; i < n; i++) {
 for(int j = 0; j * j < n; j++) {
 cout << “PhysicsWallah ”;
 }
}
```



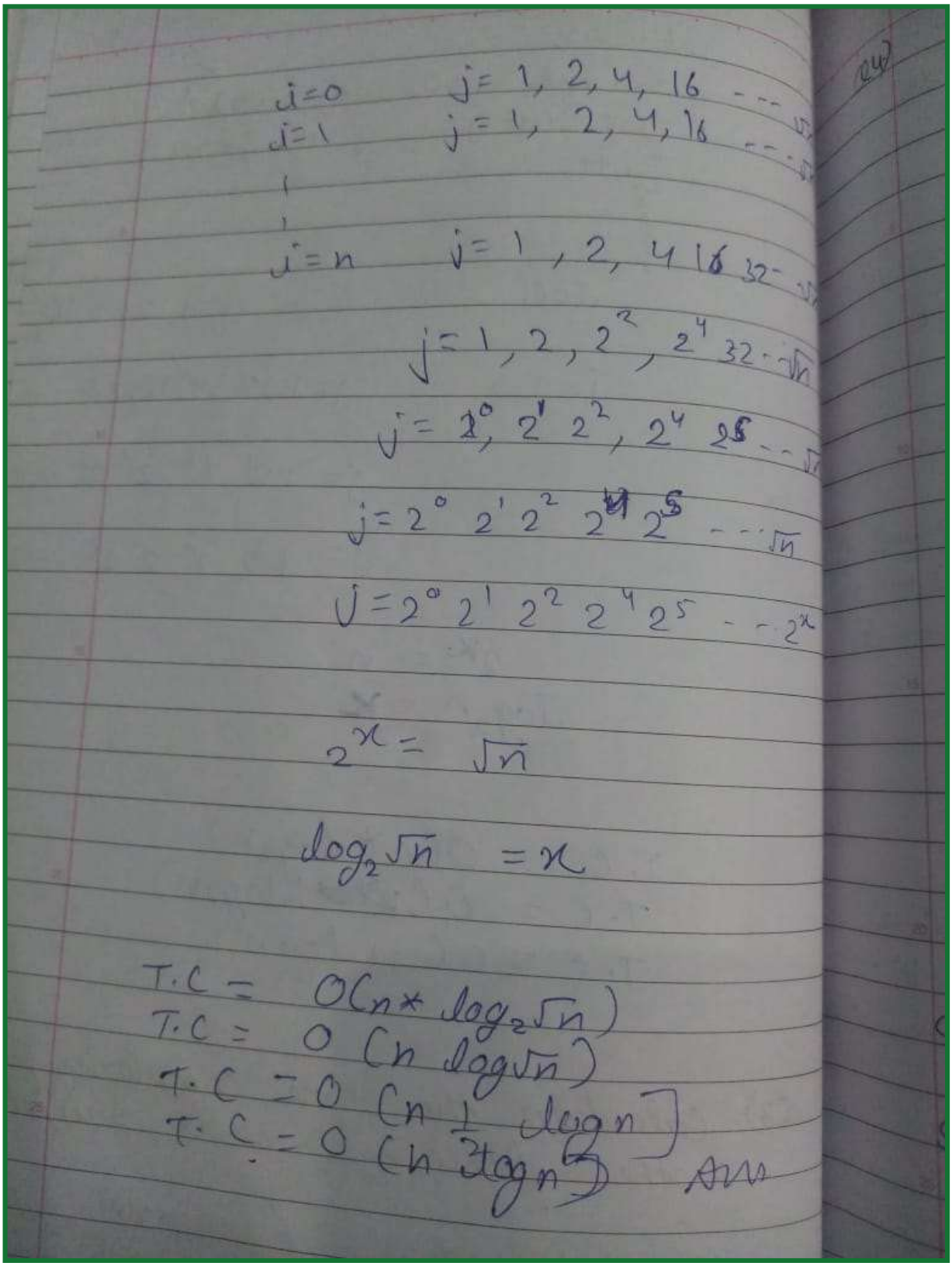
2. Calculate the time complexity for the following code snippet.

```
int c = 0;
for(int i = 0; i < n; i++) {
 for(int j = 1; j < n; j *= 2) {
 c++;
 }
}
```



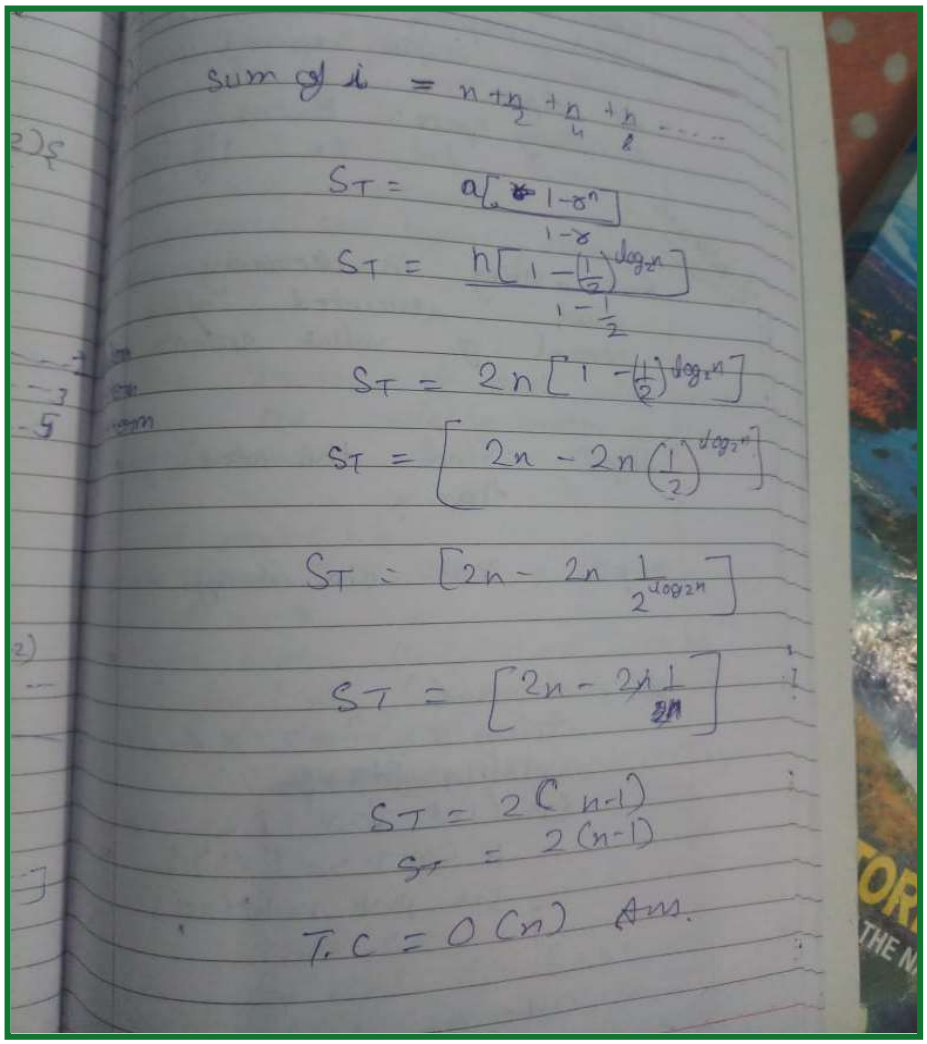
3. Calculate the time complexity for the following code snippet.

```
int c = 0;
for(int i = 0; i < n; i++) {
 for(int j = 1; j * j < n; j *= 2) {
 c++;
 }
}
```



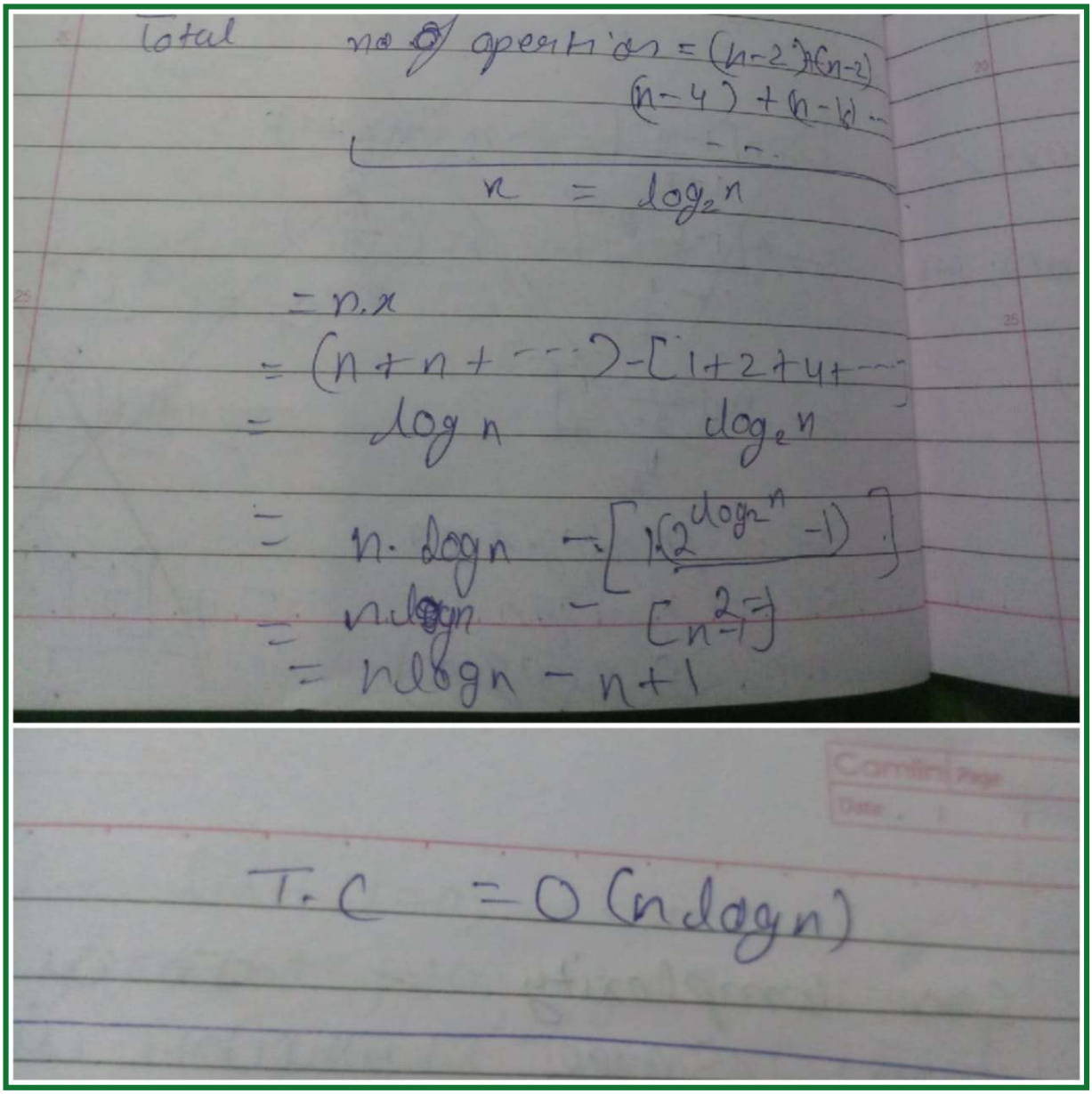
4. Calculate the time complexity for the following code snippet.

```
int c = 0;
for(int i = n; i > 0; i /= 2) {
 for(int j = 0; j < i; j ++) {
 c++;
 }
}
```



5. Calculate the time complexity for the following code snippet.

```
int c = 0;
for(int i = 1; i < n; i*=2) {
 for(int j = n; j > i; j--) {
 c++;
 }
}
```



Note:- Please try to invest time doing the assignments which are necessary to build a strong foundation. Do not directly Copy Paste using Google or ChatGPT. Please use your brain 😀 *.*