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

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

Ans 1 : - O(logN).

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

```
int c = 0;
for(int i = n; i > 1; i /= i) {
c++;
}
```

Ans 2 : - O(1).

3. Calculate the time complexity for the following code snippet where k is some constant (k<<n).

```
int c = 0;
for(int i = 0; i < n; i += k) {
c++;
}
```

Ans 3 : - O(n/k) ~ O(n).

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

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

Ans 4 : - O(logN).

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

```
int c = 0;
for(int i = 0; i < n; i++) {
c +=i;
}
```

Ans 5 : - O(N).

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

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

Ans 6 : - O(N^2).