1.

int a = 0, b = 0;  
for (i = 0; i < N; i++) {  
 a = a + rand();  
}  
for (j = 0; j < M; j++) {  
 b = b + rand();  
}

Time Complexity 🡪 O(n)

Space Complexity 🡪 O(1)

2.

int a = 0;  
for (i = 0; i < N; i++) {  
 for (j = N; j > i; j--) {  
 a = a + i + j;  
 }  
}

Time Complexity 🡪 O(n2)

Space Complexity 🡪 O(1)

3.

int i, j, k = 0;  
for (i = n / 2; i <= n; i++) {  
 for (j = 2; j <= n; j = j \* 2) {  
 k = k + n / 2;  
 }  
}

Time Complexity 🡪 O(nlogn)

Space Complexity 🡪 O(1)

4.

int a = 0, i = N;  
while (i > 0) {  
 a += i;  
 i /= 2;  
}

Time Complexity 🡪 O(logn)

Space Complexity 🡪 O(1)

5.

for(var i=0;i<n; i++)  
 i\*=k

Time Complexity 🡪 O(♾)

6.

var value = 0;  
for(var i=0;i<n; i++)  
 for(var j=0;j<i; j++)  
 value += 1;

Time Complexity 🡪 O(n2)

Space Complexity 🡪 O(1)