



Question

Hints

Help Requests

Discussions

Your Score: 20

Max Score: 20

what is the time, space complexity of following code .

- C++
- Java
- Python

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

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

Choose the correct answer from below:

 **$O(N * N)$ time, $O(1)$ space** $O(N)$ time, $O(N)$ space $O(N)$ time, $O(N)$ space $O(N * N)$ time, $O(N)$ space $O(N * N * N)$ time, $O(1)$ space

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Your Score: 30

Max Score: 30

All

Q1

Q2

Q3

Q4

Q5

Q6

Q2. Time-Complexity-22

Solved



Stuck somewhere?

Ask for help from a TA and get it resolved.

Get help from TA.

What is the time complexity of following code:

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

Choose the correct answer from below:

 $O(n)$  $O(n \log n)$  $O(n^2)$  $O(n^2 \log n)$

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Question

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Your Score: 0

Max Score: 30

All

Q1

Q2

Q3

Q4

Q5

Q6

- Java
- Python

```
void solve(){
    int i = 1;
    while(i < n){
        int x = i;
        while(x--){
            // O(1) operation
        }
        i++;
    }
}
```

```
public void solve(){
    int i = 1;
    while(i < n){
        int x = i;
        while(x-- > 0){
            // O(1) operation
        }
        i++;
    }
}
```

```
def solve():
    i = 1
    while i < n:
        x = i
```

Choose the correct answer from below:

 $O(n \log n)$  $O(n)$  $O(n \sqrt{n})$  $O(n^2)$ 

None of the above

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Your Score: 30 Max Score: 30

All

Q1

Q2

Q3

Q4

Q5

Q6

Q4. NESTED_CMPL2



Solved



Stuck somewhere?

Ask for help from a TA and get it resolved.

Get help from TA.

What is the time complexity of the following code :

- C++
- Java
- Python

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

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

```
a = 0
for i in range(N):
    for j in range(N):
        a = a + i + j
```

Choose the correct answer from below:

 $O(N)$  $O(N \cdot \log(N))$  $O(N \cdot \text{Sqrt}(N))$  $O(N \cdot N)$

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Question

Hints

Help Requests

Discussions

Your Score: 80 Max Score: 80

All

Q 1

Q 2

Q 3

Q 4

Q 5

Q 6

Q5. NESTED_CMPL3

Solved



Stuck somewhere?

Ask for help from a TA and get it resolved.

[Get help from TA.](#)

What is time complexity of following code :

- C++
- Java
- Python

```
int count = 0;
for (int i = N; i > 0; i /= 2) {
    for (int j = 0; j < i; j++) {
        count += 1;
    }
}
```

```
int count = 0;
for (int i = N; i > 0; i /= 2) {
    for (int j = 0; j < i; j++) {
        count += 1;
    }
}
```

Choose the correct answer from below:

 $O(N * N)$  $O(N * \log N)$  $O(N * \log(\log(N)))$  $O(N)$  $O(N * \text{Sqrt}(N))$ 

Submit



All

Q 1

Q 2

Q 3

Q 4

Q 5

Q 6

Q6. WHILE_CMPL



Solved



Stuck somewhere?

Ask for help from a TA and get it resolved.

Get help from TA.

What is the time complexity of the following code :

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

Choose the correct answer from below:

 $O(N)$  $O(\text{Sqrt}(N))$  $O(N / 2)$  $O(\log N)$  $O(\log(\log N))$ 

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