

Factorial in C++

```
#include <iostream>
```

```
using namespace std;
```

```
int fact(int n) {  
    if (n == 0) {  
        return 1;  
    } else {  
        int prev = fact(n - 1);  
        return n * prev;  
    }  
}
```

```
int main() {  
    cout << fact(6) << endl;  
    return 0;  
}
```

Dry Run Table for fact(6):

Call Level	n	Recursive Call	Returned Value	Computation
1	6	6 * fact(5)	720	6 * 120
2	5	5 * fact(4)	120	5 * 24
3	4	4 * fact(3)	24	4 * 6
4	3	3 * fact(2)	6	3 * 2
5	2	2 * fact(1)	2	2 * 1
6	1	1 * fact(0)	1	1 * 1
7 (Base)	0	return 1	1	Base case hit

📌 Final Output:

720

Output:-
720