Min-Max in C++

```
#include <iostream>
#include <climits> // for INT_MAX and INT_MIN
using namespace std;

int getMin(int arr[], int i, int n) {
    if (n == 1) {
        return arr[i];
    } else {
        return min(arr[i], getMin(arr, i + 1, n - 1));
    }
}

int getMax(int arr[], int i, int n) {
    if (n == 1) {
        return arr[i];
    } else {
        return max(arr[i], getMax(arr, i + 1, n - 1));
    }
}

int main() {
    int arr[] = {12, 8, 45, 67, 9};
    int n = sizeof(arr) / sizeof(arr[0]);
    cout << "Minimum element of array: " <<
getMin(arr, 0, n) << endl;
    cout << "Maximum element of array: " <<
getMax(arr, 0, n) << endl;
    return 0;
}
```

Dry Run Table for getMin(arr, 0, 5)

Call Level	i	arr[i]	Recursive Call	Returned Value	Computation
1	0	12	min(12, getMin(1, 4))	8	min(12, 8)
2	1	8	min(8, getMin(2, 3))	8	min(8, 9)
3	2	45	min(45, getMin(3, 2))	9	min(45, 9)
4	3	67	min(67, getMin(4, 1))	9	min(67, 9)
5 (base)	4	9	return arr[4]	9	Base case

Dry Run Table for getMax(arr, 0, 5)

Call Level	i	arr[i]	Recursive Call	Returned Value	Computation
1	0	12	max(12, getMax(1, 4))	67	max(12, 67)
2	1	8	max(8, getMax(2, 3))	67	max(8, 67)
3	2	45	max(45, getMax(3, 2))	67	max(45, 67)
4	3	67	max(67, getMax(4, 1))	67	max(67, 9)
5 (base)	4	9	return arr[4]	9	Base case

✔ Final Output:

Minimum element of array: 8
Maximum element of array: 67

Output:-

Minimum element of array: 8
Maximum element of array: 67