

# C++ Vector Size or Length

## C++ Vector Size

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To get the size of a C++ Vector, you can use `size()` function on the vector.

`size()` function returns the number of elements in the vector.

### Example 1: Find Vector Length using `size()`

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In the following C++ program, we define a vector of integers, add some elements to it, and then find its length using `size()` function.

#### C++ Program

```
#include <iostream>
#include <vector>
using namespace std;

int main() {
    vector<int> nums;
    nums.push_back(24);
    nums.push_back(81);
    nums.push_back(57);

    cout << nums.size();
}
```

#### Output

```
3
```

### Example 2: Length of Empty Vector

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In the following C++ program, we define a vector of integers, with no elements in it, and then find its length using `size()` function. `size()` should return a value of zero.

#### C++ Program

```
#include <iostream>
```

```
#include <vector>
using namespace std;

int main() {
    vector<int> nums;
    cout << nums.size();
}
```

### Output

0

### Example 3: Length of Vector using Foreach

You can also use [C++ Foreach](#) statement to get the length or size of a vector.

In the following program, we shall define a vector and initialize with elements. Then take a len variable with zero initial value that acts as a counter to count the number of elements in the vector. Use Foreach statement to iterate over the elements of vector and increment the counter during each iteration.

### C++ Program

```
#include <iostream>
#include <vector>
using namespace std;

int main() {
    vector<int> nums;
    nums.push_back(24);
    nums.push_back(81);
    nums.push_back(57);

    int len = 0;
    for (int element: nums)
        len++;

    cout << len;
}
```

### Output

3

### Conclusion

In this [C++ Tutorial](#), we learned to find the size of vector, which is the number of elements in a vector using builtin functions or statements like foreach.

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