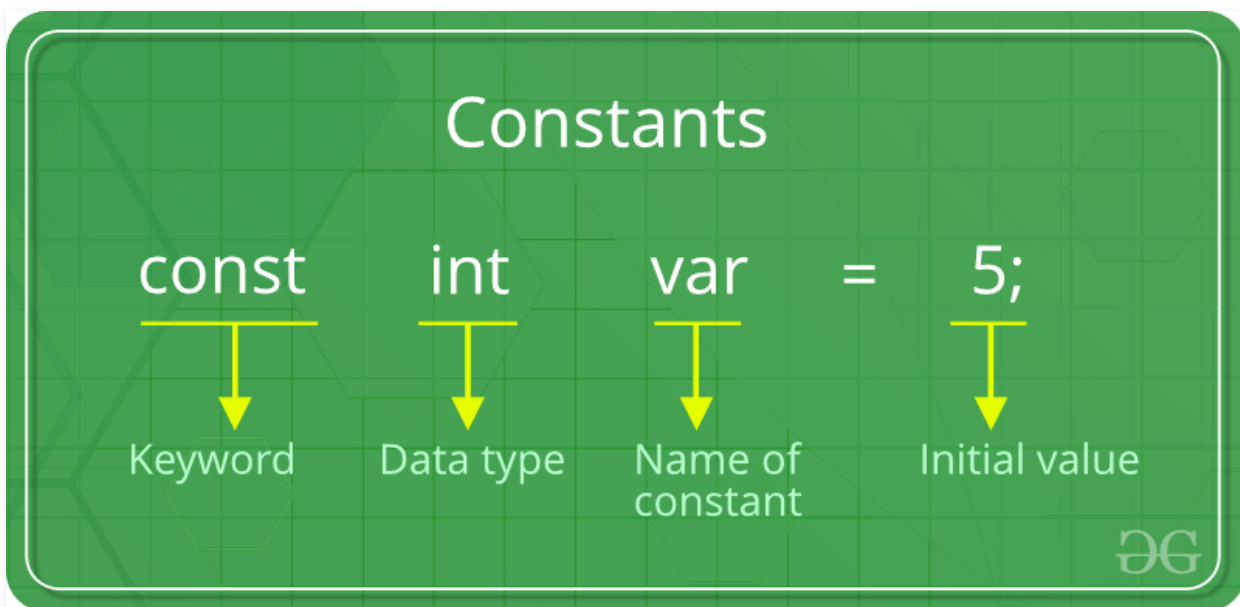


Constants in C/C++

Difficulty Level : Easy • Last Updated : 03 Aug, 2021

As the name suggests the name constants are given to such variables or values in C/C++ programming language which cannot be modified once they are defined. They are fixed values in a program. There can be any types of constants like integer, float, octal, hexadecimal, character constants, etc. Every constant has some range. The integers that are too big to fit into an int will be taken as long. Now there are various ranges that differ from unsigned to signed bits. Under the signed bit, the range of an int varies from -128 to +127, and under the unsigned bit, int varies from 0 to 255.



Defining Constants:

In C/C++ program we can define constants in two ways as shown below:

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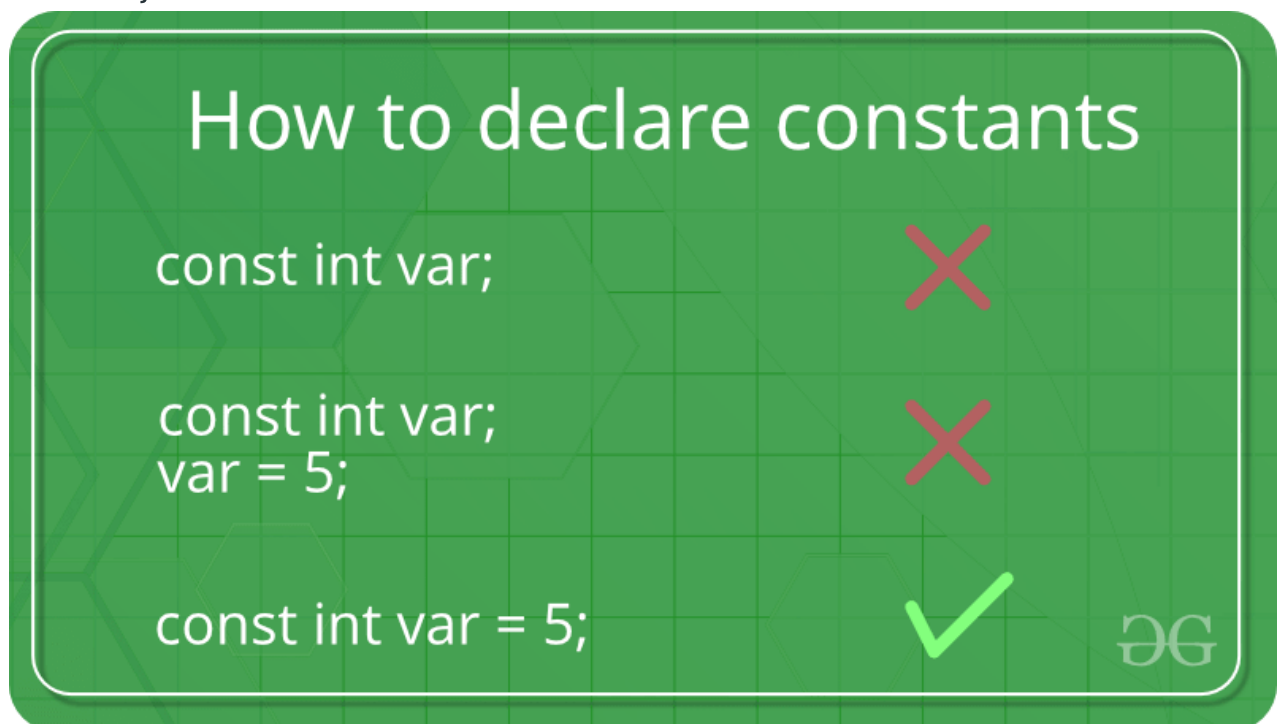
Refer here for various [Types of Literals in C++](#).

Let us now learn about above two ways in details:

1. **Using `#define` preprocessor directive:** This directive is used to declare an alias name for existing variable or any value. We can use this to declare a constant as shown below:

```
#define identifierName value
```

 - **identifierName:** It is the name given to constant.
 - **value:** This refers to any value assigned to identifierName.
2. **using a `const` keyword:** Using `const` keyword to define constants is as simple as defining variables, the difference is you will have to precede the definition with a `const` keyword.



Below program shows how to use `const` to declare constants of different data types:

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```
// Real constant
const float floatVal = 4.14;
```

```
// char constant
const char charVal = 'A';
```

```
.....
```

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```
printf("String constant: %s\n", stringVal);
```

```
return 0;
```

```
}
```

C++

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

```
int main() {
    // int constant
    const int intVal = 10;

    // Real constant
    const float floatVal = 4.14;

    // char constant
    const char charVal = 'A';

    // string constant
    const string stringVal = "ABC";
```

```
cout << "Integer Constant: " << intVal << "\n";
cout << "Floating point Constant: " << floatVal << "\n";
cout << "Character Constant: " << charVal << "\n";
cout << "String Constant: " << stringVal << "\n";
```

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Floating point constant: 4.14

Character constant: A

String constant: ABC

Refer [Const Qualifier in C for details](#).

This article is contributed by **Chinmoy Lenka**. If you like GeeksforGeeks and would like to contribute, you can also write an article using write.geeksforgeeks.org or mail your article to review-team@geeksforgeeks.org. See your article appearing on the GeeksforGeeks main page and help other Geeks.

Please write comments if you find anything incorrect, or you want to share more information about the topic discussed above.


If (Coding)

```
{  
  C foundation course = true;  
  Focus = 100;  
}
```

cout << "Success" ;

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