## New Lines

To insert a new line, you can use the \n character:

### Example

#include <iostream>  
using namespace std;  
  
int main() {  
  cout << "Hello World! \n";  
  cout << "I am learning C++";  
  return 0;  
}

[Try it Yourself »](https://www.w3schools.com/cpp/trycpp.asp?filename=demo_output3)

Tip: Two \n characters after each other will create a blank line:

### Example

#include <iostream>  
using namespace std;  
  
int main() {  
  cout << "Hello World! \n\n";  
  cout << "I am learning C++";  
  return 0;  
}

[Try it Yourself »](https://www.w3schools.com/cpp/trycpp.asp?filename=demo_output4)

Another way to insert a new line, is with the endl manipulator:

### Example

#include <iostream>  
using namespace std;  
  
int main() {  
  cout << "Hello World!" << endl;  
  cout << "I am learning C++";  
  return 0;  
}

[Try it Yourself »](https://www.w3schools.com/cpp/trycpp.asp?filename=demo_output5)

Both \n and endl are used to break lines. However, \n is most used.

#### But what is \n exactly?

The newline character (\n) is called an escape sequence, and it forces the cursor to change its position to the beginning of the next line on the screen. This results in a new line.

Examples of other valid escape sequences are:

|  |  |  |
| --- | --- | --- |
| Escape Sequence | Description | Try it |
| \t | Creates a horizontal tab | [Try it](https://www.w3schools.com/cpp/trycpp.asp?filename=demo_esc_char) |
| \\ | Inserts a backslash character (\) | [Try it](https://www.w3schools.com/cpp/trycpp.asp?filename=demo_esc_char_backslash) |
| \" | Inserts a double quote character |  |

## C++ Comments

Comments can be used to explain C++ code, and to make it more readable. It can also be used to prevent execution when testing alternative code. Comments can be singled-lined or multi-lined.

Comments គឺប្រើប្រាស់ដើម្បីកំណត់ចំណាំអំពីកូដ ទាំងការពន្យល់និងសំណួរផ្សេងៗ ដែលយើងមាន ២ វិធីដើម្បី Comments គឺរួមមាន៖ single-line comment and multi-line comments ដែលយើងក៏អាចប្រើប្រាស់វាដើម្បីបិទកូដមិនអោយដំណើរការ។ single-line (//code), multi-line (/\* code \*/)

## Single-line Comments

Single-line comments start with two forward slashes (//).

Any text between // and the end of the line is ignored by the compiler (will not be executed).

This example uses a single-line comment before a line of code:

### Example

// This is a comment  
cout << "Hello World!";

[Try it Yourself »](https://www.w3schools.com/cpp/trycpp.asp?filename=demo_single_comment)

This example uses a single-line comment at the end of a line of code:

### Example

cout << "Hello World!"; // This is a comment

[Try it Yourself »](https://www.w3schools.com/cpp/trycpp.asp?filename=demo_single_comment_end)

## C++ Multi-line Comments

Multi-line comments start with /\* and ends with \*/.

Any text between /\* and \*/ will be ignored by the compiler:

### Example

/\* The code below will print the words Hello World!  
to the screen, and it is amazing \*/  
cout << "Hello World!";

[Try it Yourself »](https://www.w3schools.com/cpp/trycpp.asp?filename=demo_multi_comment)

#### Single or multi-line comments?

It is up to you which you want to use. Normally, we use // for short comments, and /\* \*/ for longer.

## C++ Variables

Variables are containers for storing data values.

Variables គឺប្រែថាអញ្ញាតិដែលប្រើសម្រាប់ផ្ទុកនូវទិន្នន័យឬតម្លៃរបស់វា

Name = “Sophay”;

Age = 20;

Variable Can store 3 Value Type

* Number (short, int, flaot, double, long, long long)
* Text (char, string)
* Boolean (bool) -> true/false
  + True = 1
  + False = 0

In C++, there are different types of variables (defined with different keywords), for example:

* int - stores integers (whole numbers), without decimals, such as 123 or -123
* double - stores floating point numbers, with decimals, such as 19.99 or -19.99
* char - stores single characters, such as 'a' or 'B'. Char values are surrounded by single quotes
* string - stores text, such as "Hello World". String values are surrounded by double quotes
* bool - stores values with two states: true or false

## Declaring (Creating) Variables

To create a variable, specify the type and assign it a value:

### Syntax រូបមន្ត

តាង x ជាទទឹងនៃចតុកោណកែង  
float x = 25.5;

type variableName = value;

Where type is one of C++ types (such as int), and variableName is the name of the variable (such as x or myName). The equal sign is used to assign values to the variable.

To create a variable that should store a number, look at the following example:

### Example

Create a variable called myNum of type int and assign it the value 15:

int myNum = 15;  
cout << myNum;

[Try it Yourself »](https://www.w3schools.com/cpp/trycpp.asp?filename=demo_variables_int)

You can also declare a variable without assigning the value, and assign the value later:

### Example

int myNum;  
myNum = 15;  
cout << myNum;

[Try it Yourself »](https://www.w3schools.com/cpp/trycpp.asp?filename=demo_variables_int2)

Note that if you assign a new value to an existing variable, it will overwrite the previous value:

### Example

int myNum = 15;  // myNum is 15  
myNum = 10;  // Now myNum is 10  
cout << myNum;  // Outputs 10

[Try it Yourself »](https://www.w3schools.com/cpp/trycpp.asp?filename=demo_variables_int3)

## Other Types

A demonstration of other data types:

### Example

int myNum = 5;               // Integer (whole number without decimals)  
double myFloatNum = 5.99;    // Floating point number (with decimals)  
char myLetter = 'D';         // Character  
string myText = "Hello";     // String (text)  
bool myBoolean = true;       // Boolean (true or false)

You will learn more about the individual types in the [Data Types](https://www.w3schools.com/cpp/cpp_data_types.asp) chapter.

## Display Variables (cout)

The cout object is used together with the << operator to display variables.

To combine both text and a variable, separate them with the << operator:

### Example

int myAge = 35;  
cout << "I am " << myAge << " years old.";

[Try it Yourself »](https://www.w3schools.com/cpp/trycpp.asp?filename=demo_variables_display)

## Add Variables Together

To add a variable to another variable, you can use the + operator:

### Example

int x = 5;  
int y = 6;  
int sum = x + y;  
cout << sum;