



C Data Types

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Data Types

As explained in the [Variables chapter](#), a variable in C must be a specified **data type**, and you must use a **format specifier** inside the `printf()` function to display it:

Example

```
// Create variables
int myNum = 5;           // Integer (whole number)
float myFloatNum = 5.99; // Floating point number
char myLetter = 'D';     // Character

// Print variables
printf("%d\n", myNum);
printf("%f\n", myFloatNum);
printf("%c\n", myLetter);
```

[Try it Yourself »](#)

Basic Data Types

The data type specifies the size and type of information the variable will store.

In this tutorial, we will focus on the most basic ones:

Data Type	Size	Description
<code>int</code>	2 or 4 bytes	Stores whole numbers, without decimals
<code>float</code>	4 bytes	Stores fractional numbers, containing one or more decimals. Sufficient for storing 7 decimal digits
<code>double</code>	8 bytes	Stores fractional numbers, containing one or more decimals. Sufficient for storing 15 decimal digits
<code>char</code>	1 byte	Stores a single character/letter/number, or ASCII values

Basic Format Specifiers

There are different format specifiers for each data type. Here are some of them:

Format Specifier	Data Type	Try it
<code>%d</code> or <code>%i</code>	<code>int</code>	Try it »
<code>%f</code>	<code>float</code>	Try it »
<code>%lf</code>	<code>double</code>	Try it »
<code>%c</code>	<code>char</code>	Try it »
<code>%s</code>	Used for strings (text) , which you will learn more about in a later chapter	Try it »

C Exercises

Test Yourself With Exercises

Exercise:

Add the correct data type for the following variables:

```
myNum = 5;  
myFloatNum = 5.99;  
myLetter = 'D';
```

[Submit Answer »](#)

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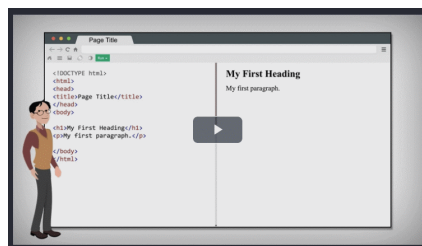
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