

# C++ Math fmax()

The function returns the maximum value between two numbers.

## Conditions:

Consider two numbers 'x' and 'y'.

**If(x>y):** It returns x.

**If(y>x):** It returns y.

**if (x=nan):** It returns y.

**if (y=nan):** It returns x.

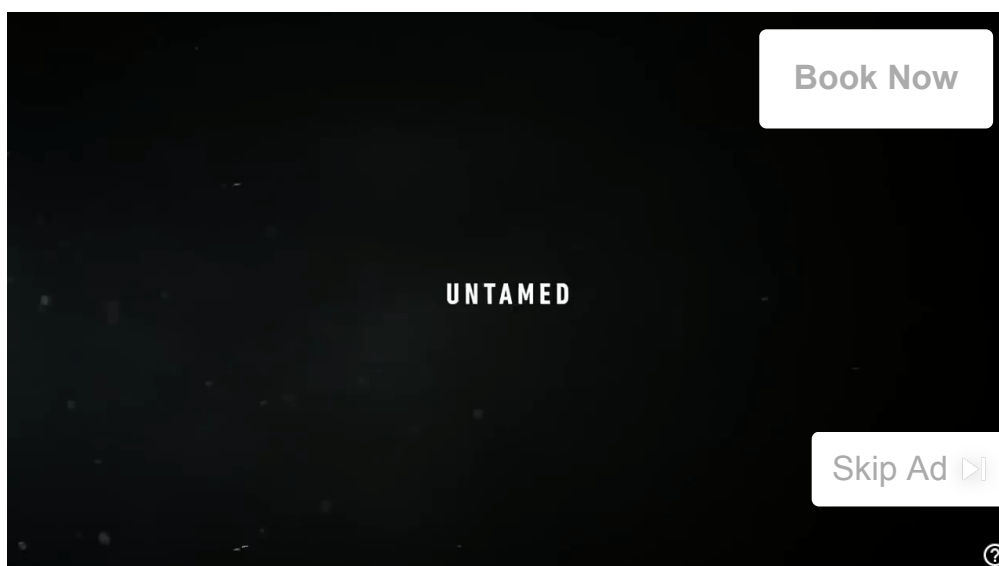
## Syntax

```
float fmax(float x, float y);  
double fmax(double x, double y);  
long double fmax(long double x, long double y);  
promoted fmax(Arithmetic x, Arithmetic y);
```

Note: If any argument has an integral type, then it is cast to double. If any other argument is long double, then it is cast to long double.

## Parameter

**(x,y):** Values among which the maximum value is calculated.



## Return value

↑ SCROLL TO TOP m value between two numbers.

## Example 1

Let's see a simple example.

```
#include <iostream>
#include<math.h>
using namespace std;
int main()
{
    double x=3.3;
    float y=6.9;
    std::cout <<"Values of x and y are :"<<x<<" "<<y<< std::endl;
    cout<<"Maximum value is :"<<fmax(x,y);
    return 0;
}
```

### Output:

```
Values of x and y are :3.3,6.9
Maximum value is :6.9
```

In this example, value of y is greater than the value of x. Therefore, fmax() function returns the value of y.

## Example 2

Let's see a simple example when one of the value is nan.

```
#include <iostream>
#include<math.h>
using namespace std;
int main()
{
    double x=1.3;
    float y=NAN;
    std::cout <<"Values of x and y are :"<<x<<" "<<y<< std::endl;
    cout<<"Maximum value is :"<<fmax(x,y);
    return 0;
}
```

↑ SCROLL TO TOP

**Output:**

```
Values of x and y are :1.3,nan  
Maximum value is :1.3
```

In this example, value of y is nan. Therefore, fmax() function returns the value of x.

[← Prev](#)[Next →](#)

 [Youtube](#) For Videos Join Our Youtube Channel: [Join Now](#)

## Feedback

- Send your Feedback to [feedback@javatpoint.com](mailto:feedback@javatpoint.com)

## Help Others, Please Share

[↑ SCROLL TO TOP](#)