C# Math.Sin() – Syntax & Examples

C# Math.Sin() – Examples

In this tutorial, we will learn about the C# Math.Sin() method, and learn how to use this method to find the sine of given angle, with the help of examples.

Sin(Double)

Math.Sin(a) returns the sine of the specified angle `a`. Sin() function considers the specified angle in radians.

Syntax

The syntax of Sin() method is

```
Math.Sin(Double a)
```

where

Parameter	Description
a	The angle in radians.

Return Value

The method returns double value.

Example 1 – Sin(45 degrees)

In this example, we will compute sine for 45 degrees. We know that sin(45 degrees) is inverse of square root 2.

C# Program

```
using System;

class Example {
```

```
    static void Main(string[] args) {
        Double angle = Math.PI/4; //45 degrees

        Double value = Math.Sin(angle);
        Console.WriteLine($"Sine ({(180 / Math.PI) * angle} degrees) = {value}");
    }
}
```

Output

```
Sine (45 degrees) = 0.707106781186548
```

Example 2 – Sin(90 degrees)

In this example, we will compute sine for 90 degrees. We know that sin(90 degrees) is 1.

C# Program

```
using System;

class Example {
    static void Main(string[] args) {
        Double angle = Math.PI/2; //90 degrees

        Double value = Math.Sin(angle);
        Console.WriteLine($"Sine ({(180 / Math.PI) * angle} degrees) = {value}");
    }
}
```

Output

```
Sine (90 degrees) = 1
```

Example 3 – Sin(-60 degrees)

In this example, we will compute sine for -60 degrees. We know that sin(-60 degrees) is -0.5

C# Program

```
using System;

class Example {
    static void Main(string[] args) {
        Double angle = -Math.PI/6; //-60 degrees

        Double value = Math.Sin(angle);
        Console.WriteLine($"Sine ({(180 / Math.PI) * angle} degrees) = {value}");
    }
}
```

Output

```
Sine (-30 degrees) = -0.5
```

Conclusion

In this C# Tutorial, we have learnt the syntax of C# Math.Sin() method, and also learnt how to use this method with the help of C# example programs.

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