

C# Math.Sinh() – Syntax & Examples

C# Math.Sinh() – Examples

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

Sinh(Double)

Math.Sinh(value) returns the hyperbolic sine of the specified angle `value`. The angle is specified in radians.

Syntax

The syntax of Sinh() method is

```
Math.Sinh(Double value)
```

where

Parameter	Description	
value	The value represents radians for which hyperbolic sine is to be calculated.	

Return Value

The method returns value of type Double.

Example 1 – Sinh(Double)

In this example, we will find the hyperbolic sine of some angles like 1 radian, PI radians, PI/2 radians, 0 radians, Infinity radians, -Infinity radians.

C# Program

```
using System;
```

```

class Example {
    static void Main(string[] args) {
        Double value, result;

        value = 1; //1 radian
        result = Math.Sinh(value);
        Console.WriteLine($"Sinh({value} radian) = {result}.");

        value = Math.PI; // PI radians or 180 degrees
        result = Math.Sinh(value);
        Console.WriteLine($"Sinh({value} radian) = {result}.");

        value = Math.PI/2; // 90 degrees
        result = Math.Sinh(value);
        Console.WriteLine($"Sinh({value} radian) = {result}.");

        value = 0; // 0 degrees
        result = Math.Sinh(value);
        Console.WriteLine($"Sinh({value} radian) = {result}.");

        value = Double.PositiveInfinity;
        result = Math.Sinh(value);
        Console.WriteLine($"Sinh({value} radian) = {result}.");

        value = Double.NegativeInfinity;
        result = Math.Sinh(value);
        Console.WriteLine($"Sinh({value} radian) = {result}.");
    }
}

```

Output

```

Sinh(1 radian) = 1.1752011936438.
Sinh(3.14159265358979 radian) = 11.5487393572577.
Sinh(1.5707963267949 radian) = 2.30129890230729.
Sinh(0 radian) = 0.
Sinh(∞ radian) = ∞.
Sinh(-∞ radian) = -∞.

```

Conclusion

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

C# Math

- ◆ [C# Math.Abs\(\)](#)
- ◆ [C# Math.Acos\(\)](#)
- ◆ [C# Math.Acosh\(\)](#)

- ◆ `C# Math.Asin()`
- ◆ `C# Math.Asinh()`
- ◆ `C# Math.Atan()`
- ◆ `C# Math.Atan2()`
- ◆ `C# Math.Atanh()`
- ◆ `C# Math.BigMul()`
- ◆ `C# Math.BitDecrement()`
- ◆ `C# Math.BitIncrement()`
- ◆ `C# Math.Cbrt()`
- ◆ `C# Math.Ceiling()`
- ◆ `C# Math.Clamp()`
- ◆ `C# Math.CopySign()`
- ◆ `C# Math.Cos()`
- ◆ `C# Math.Cosh()`
- ◆ `C# Math.DivRem()`
- ◆ `C# Math.Exp()`
- ◆ `C# Math.Floor()`
- ◆ `C# Math.FusedMultiplyAdd()`
- ◆ `C# Math.IEEERemainder()`
- ◆ `C# Math.ILogB()`
- ◆ `C# Math.Log()`
- ◆ `C# Math.Log10()`
- ◆ `C# Math.Log2()`
- ◆ `C# Math.Max()`
- ◆ `C# Math.MaxMagnitude()`
- ◆ `C# Math.Min()`
- ◆ `C# Math.MinMagnitude()`
- ◆ `C# Math.Pow()`
- ◆ `C# Math.Round()`
- ◆ `C# Math.ScaleB()`
- ◆ `C# Math.Sign()`
- ◆ `C# Math.Sin()`

⇒ **C# Math.Sinh()**

◆ [C# Math.Sqrt\(\)](#)

◆ [C# Math.Tan\(\)](#)

◆ [C# Math.Tanh\(\)](#)

◆ [C# Math.Truncate\(\)](#)

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◆ [C# Tutorial](#)

◆ [C# List](#)

◆ [C# Dictionary](#)