JAVASCRIPT - THE MATH OBJECT

The **math** object provides you properties and methods for mathematical constants and functions. Unlike other global objects, **Math** is not a constructor. All the properties and methods of **Math** are static and can be called by using Math as an object without creating it.

Thus, you refer to the constant **pi** as **Math.PI** and you call the *sine* function as **Math.sin**$_x$, where x is the method's argument.

Syntax

The syntax to call the properties and methods of Math are as follows

```
var pi_val = Math.PI;
var sine_val = Math.sin(30);
```

Math Properties

Here is a list of all the properties of Math and their description.

Property	Description
E \	Euler's constant and the base of natural logarithms, approximately 2.718.
LN2	Natural logarithm of 2, approximately 0.693.
LN10	Natural logarithm of 10, approximately 2.302.
LOG2E	Base 2 logarithm of E, approximately 1.442.
LOG10E	Base 10 logarithm of E, approximately 0.434.
PI	Ratio of the circumference of a circle to its diameter, approximately 3.14159.
SQRT1_2	Square root of 1/2; equivalently, 1 over the square root of 2, approximately 0.707.
SQRT2	Square root of 2, approximately 1.414.

In the following sections, we will have a few examples to demonstrate the usage of Math properties.

Math Methods

Here is a list of the methods associated with Math object and their description

Method	Description
abs	Returns the absolute value of a number.
acos	Returns the arccosine *inradians* of a number.
asin	Returns the arcsine *inradians* of a number.
atan	Returns the arctangent *inradians* of a number.
atan2	Returns the arctangent of the quotient of its arguments.

[ceil](#)	Returns the smallest integer greater than or equal to a number.
[cos](#)	Returns the cosine of a number.
[exp](#)	Returns E^N, where N is the argument, and E is Euler's constant, the base of the natural logarithm.
[floor](#)	Returns the largest integer less than or equal to a number.
[log](#)	Returns the natural logarithm $baseE$ of a number.
[max](#)	Returns the largest of zero or more numbers.
[min](#)	Returns the smallest of zero or more numbers.
[pow](#)	Returns base to the exponent power, that is, base exponent.
[random](#)	Returns a pseudo-random number between 0 and 1.
[round](#)	Returns the value of a number rounded to the nearest integer.
[sin](#)	Returns the sine of a number.
[sqrt](#)	Returns the square root of a number.
[tan](#)	Returns the tangent of a number.
[toSource](#)	Returns the string "Math".

In the following sections, we will have a few examples to demonstrate the usage of the methods associated with Math.

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