JAVA.LANG.MATH.LOG1P METHOD

Description

The **java.lang.Math.log1p*doublex*** returns the natural logarithm of the sum of the argument and 1. Note that for small values x, the result of log1px is much closer to the true result of ln$1 + x$ than the floating-point evaluation of log$1.0 + x$.Special cases:

- If the argument is NaN or less than -1, then the result is NaN.
- If the argument is positive infinity, then the result is positive infinity.
- If the argument is negative one, then the result is negative infinity.
- If the argument is zero, then the result is a zero with the same sign as the argument.

Declaration

Following is the declaration for **java.lang.Math.log1p** method

```
public static double log1p(double x)
```

Parameters

- **x** -- a value

Return Value

This method returns the value ln$x + 1$, the natural log of x + 1

Exception

- **NA**

Example

The following example shows the usage of lang.Math.log1p method.

```
package com.tutorialspoint;

import java.lang.*;

public class MathDemo {

   public static void main(String[] args) {

   // get two double numbers
   double x = 60984.1;
   double y = 1000;

   // call log1p and print the result
   System.out.println("Math.log1p(" + x + ")=" + Math.log1p(x));

   // call log1p and print the result
   System.out.println("Math.log1p(" + y + ")=" + Math.log1p(y));
   }
}
```

Let us compile and run the above program, this will produce the following result:

```
Math.log1p(60984.1)=11.018384851023473
Math.log1p(1000)=6.90875477931522
```