

JAVA.MATH.BIGINTEGER.GETLOWESTSETBIT METHOD

http://www.tutorialspoint.com/java/math/biginteger_getlowestsetbit.htm

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Description

The **java.math.BigInteger.getLowestSetBit** returns the index of the rightmost *lowest – order* one bit in this BigInteger *thenumberofzerobits to the right of the rightmost one bit*. It returns -1 if this BigInteger contains no one bits. It computes `this==0? -1 : log2(this & -this)`.

Declaration

Following is the declaration for **java.math.BigInteger.getLowestSetBit** method

```
public int getLowestSetBit()
```

Parameters

- NA

Return Value

This method returns the index of the rightmost one bit in this BigInteger.

Exception

- NA

Example

The following example shows the usage of `math.BigInteger.getLowestSetBit` method

```
package com.tutorialspoint;

import java.math.*;

public class BigIntegerDemo {

    public static void main(String[] args) {

        // create 2 BigInteger objects
        BigInteger bi1, bi2;

        // create 2 int objects
        int i1, i2;

        // assign values to bi1, bi2
        bi1 = new BigInteger("8");//1000
        bi2 = new BigInteger("7");//0111

        // perform getLowestSetBit on bi1, bi2
        i1 = bi1.getLowestSetBit();
        i2 = bi2.getLowestSetBit();

        String str1 = "Index of rightmost one bit in " +bi1+ " is " +i1;
        String str2 = "Index of rightmost one bit in " +bi2+ " is " +i2;

        // print i1, i2 values
        System.out.println( str1 );
        System.out.println( str2 );
    }
}
```

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

Index of rightmost one bit in 8 is 3

Index of rightmost one bit in 7 is 0

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