

JAVA.MATH.BIGINTEGER.TESTBIT() METHOD

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

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Description

The **java.math.BigInteger.testBit(int n)** returns true if and only if the designated bit is set. It computes $(this \& (1 \ll n)) \neq 0$.

Declaration

Following is the declaration for **java.math.BigInteger.testBit()** method

```
public boolean testBit(int n)
```

Parameters

- **n** - index of bit to test

Return Value

This method returns true if and only if the designated bit of this BigInteger is set.

Exception

- **ArithmeticException** - n is negative

Example

The following example shows the usage of **math.BigInteger.testBit()** method

```
package com.tutorialspoint;

import java.math.*;

public class BigIntegerDemo {

    public static void main(String[] args) {

        // create a BigInteger object
        BigInteger bi;

        // create 2 boolean objects
        Boolean b1, b2;

        bi = new BigInteger("10");

        // perform testbit on bi at index 2 and 3
        b1 = bi.testBit(2);
        b2 = bi.testBit(3);

        String str1 = "Test Bit on " + bi + " at index 2 returns " + b1;
        String str2 = "Test Bit on " + bi + " at index 3 returns " + b2;

        // print b1, b2 values
        System.out.println( str1 );
        System.out.println( str2 );
    }
}
```

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

```
Test Bit on 10 at index 2 returns false
Test Bit on 10 at index 3 returns true
```

