

JAVA.LANG.LONG.HIGHESTONEBIT METHOD

http://www.tutorialspoint.com/java/lang/long_highestonebit.htm

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Description

The **java.lang.Long.highestOneBit** method returns a long value with at most a single one-bit, in the position of the highest-order " *leftmost* " one-bit in the specified long value. It returns zero if the specified value has no one-bits in its two's complement binary representation, that is, if it is equal to zero.

Declaration

Following is the declaration for **java.lang.Long.highestOneBit** method

```
public static long highestOneBit(long i)
```

Parameters

- **i** -- This is the long value.

Return Value

This method returns a long value with a single one-bit, in the position of the highest-order one-bit in the specified value, or zero if the specified value is itself equal to zero.

Exception

- **NA**

Example

The following example shows the usage of java.lang.Long.highestOneBit method.

```
package com.tutorialspoint;

import java.lang.*;

public class LongDemo {

    public static void main(String[] args) {

        long l = 220;
        System.out.println("Number = " + l);

        /* returns the string representation of the unsigned long value
        represented by the argument in binary (base 2) */
        System.out.println("Binary = " + Long.toBinaryString(l));

        // returns the number of one-bits
        System.out.println("Number of one bits = " + Long.bitCount(l));

        /* returns a long value with at most a single one-bit, in the position
        of the highest-order ("leftmost") one-bit in the specified int value */
        System.out.println("Highest one bit = " + Long.highestOneBit(l));
    }
}
```

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

```
Number = 220
Binary = 11011100
Number of one bits = 5
Highest one bit = 128
```

