

JAVA.MATH.BIGDECIMAL.SCALEBYPOWEROFTEN METHOD

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

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Description

The **java.math.BigDecimal.scaleByPowerOfTen** method returns a BigDecimal whose numerical value is equal to (this * 10ⁿ). The scale of the result is *this.scale() - n*.

Declaration

Following is the declaration for **java.math.BigDecimal.scaleByPowerOfTen** method

```
public BigDecimal scaleByPowerOfTen(int n)
```

Parameters

- **n** - value by which BigDecimal object is multiplied to power of ten

Return Value

This method returns the BigDecimal object of value this * 10ⁿ

Exception

- **ArithmeticException** - if the scale would be outside the range of a 32-bit integer

Example

The following example shows the usage of **math.BigDecimal.scaleByPowerOfTen** method

```
package com.tutorialspoint;

import java.math.*;

public class BigDecimalDemo {

    public static void main(String[] args) {

        // create 4 BigDecimal objects
        BigDecimal bg1, bg2, bg3, bg4;

        bg1 = new BigDecimal("235.000");
        bg2 = new BigDecimal("23500");

        // assign the result of method on bg1, bg2 to bg3, bg4
        bg3 = bg1.scaleByPowerOfTen(3);
        bg4 = bg2.scaleByPowerOfTen(-3);

        String str1 = bg1 + " raised to 10 power 3 is " +bg3;
        String str2 = bg2 + " raised to 10 power -3 is " +bg4;

        // print bg3, bg4 values
        System.out.println( str1 );
        System.out.println( str2 );

    }
}
```

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

```
235.000 raised to 10 power 3 is 235000
23500 raised to 10 power -3 is 23.500
```

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