

JAVA.MATH.MATHCONTEXT CLASS

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

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Introduction

The **java.math.MathContext** class provides immutable objects which encapsulate the context settings and describes certain rules for numerical operators, such as those implemented by the **BigDecimal** class.

The base-independent settings are:

- **precision**: the number of digits to be used for an operation; results are rounded to this precision.
- **roundingMode**: a **RoundingMode** object which specifies the algorithm to be used for rounding.

Class declaration

Following is the declaration for **java.math.MathContext** class:

```
public final class MathContext
    extends Object
    implements Serializable
```

Field

Following are the fields for **java.math.MathContext** class:

- **static MathContext DECIMAL128** -- A **MathContext** object with a precision setting matching the IEEE 754R Decimal128 format, 34 digits, and a rounding mode of **HALF_EVEN**, the IEEE 754R default.
- **static MathContext DECIMAL32** -- A **MathContext** object with a precision setting matching the IEEE 754R Decimal32 format, 7 digits, and a rounding mode of **HALF_EVEN**, the IEEE 754R default.
- **static MathContext DECIMAL64** -- A **MathContext** object with a precision setting matching the IEEE 754R Decimal64 format, 16 digits, and a rounding mode of **HALF_EVEN**, the IEEE 754R default.
- **static MathContext UNLIMITED** -- A **MathContext** object whose settings have the values required for unlimited precision arithmetic.

Class constructors

S.N.	Constructor & Description
1	MathContext <i>intsetPrecision</i> This constructor, constructs a new MathContext with the specified precision and the HALF_UP rounding mode.
2	MathContext <i>intsetPrecision, RoundingModesetRoundingMode</i> This constructor, constructs a new MathContext with a specified precision and rounding mode.
3	MathContext <i>Stringval</i> This constructor, constructs a new MathContext from a string.

Class methods

S.N.	Method & Description
1	<u>boolean equalsObjectx</u> This method compares this MathContext with the specified Object for equality.
2	<u>int getPrecision</u> This method returns the precision setting.
3	<u>RoundingMode getRoundingMode</u> This method returns the roundingMode setting.
4	<u>int hashCode</u> This method returns the hash code for this MathContext.
5	<u>String toString</u> This method returns the string representation of this MathContext.