| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | [**Class**](http://docs.google.com/java/math/BigInteger.html) | **Use** | [**Tree**](http://docs.google.com/package-tree.html) | [**Deprecated**](http://docs.google.com/deprecated-list.html) | [**Index**](http://docs.google.com/index-files/index-1.html) | [**Help**](http://docs.google.com/help-doc.html) | | --- | --- | --- | --- | --- | --- | --- | --- | | | ***Java™ Platform***  ***Standard Ed. 6*** |
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| PREV   NEXT | [**FRAMES**](http://docs.google.com/index.html?java/math//class-useBigInteger.html)    [**NO FRAMES**](http://docs.google.com/BigInteger.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |

**Uses of Class**

**java.math.BigInteger**

| Packages that use [BigInteger](http://docs.google.com/java/math/BigInteger.html) | |
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| [**java.awt.image**](#3znysh7) | Provides classes for creating and modifying images. |
| [**java.math**](#2et92p0) | Provides classes for performing arbitrary-precision integer arithmetic (BigInteger) and arbitrary-precision decimal arithmetic (BigDecimal). |
| [**java.security.cert**](#tyjcwt) | Provides classes and interfaces for parsing and managing certificates, certificate revocation lists (CRLs), and certification paths. |
| [**java.security.interfaces**](#3dy6vkm) | Provides interfaces for generating RSA (Rivest, Shamir and Adleman AsymmetricCipher algorithm) keys as defined in the RSA Laboratory Technical Note PKCS#1, and DSA (Digital Signature Algorithm) keys as defined in NIST's FIPS-186. |
| [**java.security.spec**](#1t3h5sf) | Provides classes and interfaces for key specifications and algorithm parameter specifications. |
| [**java.util**](#4d34og8) | Contains the collections framework, legacy collection classes, event model, date and time facilities, internationalization, and miscellaneous utility classes (a string tokenizer, a random-number generator, and a bit array). |
| [**javax.crypto.interfaces**](#2s8eyo1) | Provides interfaces for Diffie-Hellman keys as defined in RSA Laboratories' PKCS #3. |
| [**javax.crypto.spec**](#17dp8vu) | Provides classes and interfaces for key specifications and algorithm parameter specifications. |
| [**javax.management.openmbean**](#3rdcrjn) | Provides the open data types and Open MBean descriptor classes. |
| [**javax.security.cert**](#26in1rg) | Provides classes for public key certificates. |
| [**javax.xml.bind**](#lnxbz9) | Provides a runtime binding framework for client applications including unmarshalling, marshalling, and validation capabilities. |
| [**javax.xml.crypto.dsig.keyinfo**](#35nkun2) | Classes for parsing and processing [KeyInfo](http://docs.google.com/javax/xml/crypto/dsig/keyinfo/KeyInfo.html) elements and structures. |
| [**javax.xml.datatype**](#1ksv4uv) | XML/Java Type Mappings. |

| Uses of [BigInteger](http://docs.google.com/java/math/BigInteger.html) in [java.awt.image](http://docs.google.com/java/awt/image/package-summary.html) | |
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| Methods in [java.awt.image](http://docs.google.com/java/awt/image/package-summary.html) that return [BigInteger](http://docs.google.com/java/math/BigInteger.html) | |
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| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **IndexColorModel.**[**getValidPixels**](http://docs.google.com/java/awt/image/IndexColorModel.html#getValidPixels())()            Returns a BigInteger that indicates the valid/invalid pixels in the colormap. |

| Constructors in [java.awt.image](http://docs.google.com/java/awt/image/package-summary.html) with parameters of type [BigInteger](http://docs.google.com/java/math/BigInteger.html) | |
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| [**IndexColorModel**](http://docs.google.com/java/awt/image/IndexColorModel.html#IndexColorModel(int,%20int,%20int%5B%5D,%20int,%20int,%20java.math.BigInteger))(int bits, int size, int[] cmap, int start, int transferType, [BigInteger](http://docs.google.com/java/math/BigInteger.html) validBits)            Constructs an IndexColorModel from an int array where each int is comprised of red, green, blue, and alpha components in the default RGB color model format. |

| Uses of [BigInteger](http://docs.google.com/java/math/BigInteger.html) in [java.math](http://docs.google.com/java/math/package-summary.html) | |
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| Fields in [java.math](http://docs.google.com/java/math/package-summary.html) declared as [BigInteger](http://docs.google.com/java/math/BigInteger.html) | |
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| static [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **BigInteger.**[**ONE**](http://docs.google.com/java/math/BigInteger.html#ONE)            The BigInteger constant one. |
| static [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **BigInteger.**[**TEN**](http://docs.google.com/java/math/BigInteger.html#TEN)            The BigInteger constant ten. |
| static [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **BigInteger.**[**ZERO**](http://docs.google.com/java/math/BigInteger.html#ZERO)            The BigInteger constant zero. |

| Methods in [java.math](http://docs.google.com/java/math/package-summary.html) that return [BigInteger](http://docs.google.com/java/math/BigInteger.html) | |
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| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **BigInteger.**[**abs**](http://docs.google.com/java/math/BigInteger.html#abs())()            Returns a BigInteger whose value is the absolute value of this BigInteger. |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **BigInteger.**[**add**](http://docs.google.com/java/math/BigInteger.html#add(java.math.BigInteger))([BigInteger](http://docs.google.com/java/math/BigInteger.html) val)            Returns a BigInteger whose value is (this + val). |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **BigInteger.**[**and**](http://docs.google.com/java/math/BigInteger.html#and(java.math.BigInteger))([BigInteger](http://docs.google.com/java/math/BigInteger.html) val)            Returns a BigInteger whose value is (this & val). |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **BigInteger.**[**andNot**](http://docs.google.com/java/math/BigInteger.html#andNot(java.math.BigInteger))([BigInteger](http://docs.google.com/java/math/BigInteger.html) val)            Returns a BigInteger whose value is (this & ~val). |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **BigInteger.**[**clearBit**](http://docs.google.com/java/math/BigInteger.html#clearBit(int))(int n)            Returns a BigInteger whose value is equivalent to this BigInteger with the designated bit cleared. |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **BigInteger.**[**divide**](http://docs.google.com/java/math/BigInteger.html#divide(java.math.BigInteger))([BigInteger](http://docs.google.com/java/math/BigInteger.html) val)            Returns a BigInteger whose value is (this / val). |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html)[] | **BigInteger.**[**divideAndRemainder**](http://docs.google.com/java/math/BigInteger.html#divideAndRemainder(java.math.BigInteger))([BigInteger](http://docs.google.com/java/math/BigInteger.html) val)            Returns an array of two BigIntegers containing (this / val) followed by (this % val). |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **BigInteger.**[**flipBit**](http://docs.google.com/java/math/BigInteger.html#flipBit(int))(int n)            Returns a BigInteger whose value is equivalent to this BigInteger with the designated bit flipped. |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **BigInteger.**[**gcd**](http://docs.google.com/java/math/BigInteger.html#gcd(java.math.BigInteger))([BigInteger](http://docs.google.com/java/math/BigInteger.html) val)            Returns a BigInteger whose value is the greatest common divisor of abs(this) and abs(val). |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **BigInteger.**[**max**](http://docs.google.com/java/math/BigInteger.html#max(java.math.BigInteger))([BigInteger](http://docs.google.com/java/math/BigInteger.html) val)            Returns the maximum of this BigInteger and val. |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **BigInteger.**[**min**](http://docs.google.com/java/math/BigInteger.html#min(java.math.BigInteger))([BigInteger](http://docs.google.com/java/math/BigInteger.html) val)            Returns the minimum of this BigInteger and val. |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **BigInteger.**[**mod**](http://docs.google.com/java/math/BigInteger.html#mod(java.math.BigInteger))([BigInteger](http://docs.google.com/java/math/BigInteger.html) m)            Returns a BigInteger whose value is (this mod m). |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **BigInteger.**[**modInverse**](http://docs.google.com/java/math/BigInteger.html#modInverse(java.math.BigInteger))([BigInteger](http://docs.google.com/java/math/BigInteger.html) m)            Returns a BigInteger whose value is (this-1 mod m). |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **BigInteger.**[**modPow**](http://docs.google.com/java/math/BigInteger.html#modPow(java.math.BigInteger,%20java.math.BigInteger))([BigInteger](http://docs.google.com/java/math/BigInteger.html) exponent, [BigInteger](http://docs.google.com/java/math/BigInteger.html) m)            Returns a BigInteger whose value is (thisexponent mod m). |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **BigInteger.**[**multiply**](http://docs.google.com/java/math/BigInteger.html#multiply(java.math.BigInteger))([BigInteger](http://docs.google.com/java/math/BigInteger.html) val)            Returns a BigInteger whose value is (this \* val). |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **BigInteger.**[**negate**](http://docs.google.com/java/math/BigInteger.html#negate())()            Returns a BigInteger whose value is (-this). |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **BigInteger.**[**nextProbablePrime**](http://docs.google.com/java/math/BigInteger.html#nextProbablePrime())()            Returns the first integer greater than this BigInteger that is probably prime. |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **BigInteger.**[**not**](http://docs.google.com/java/math/BigInteger.html#not())()            Returns a BigInteger whose value is (~this). |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **BigInteger.**[**or**](http://docs.google.com/java/math/BigInteger.html#or(java.math.BigInteger))([BigInteger](http://docs.google.com/java/math/BigInteger.html) val)            Returns a BigInteger whose value is (this | val). |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **BigInteger.**[**pow**](http://docs.google.com/java/math/BigInteger.html#pow(int))(int exponent)            Returns a BigInteger whose value is (thisexponent). |
| static [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **BigInteger.**[**probablePrime**](http://docs.google.com/java/math/BigInteger.html#probablePrime(int,%20java.util.Random))(int bitLength, [Random](http://docs.google.com/java/util/Random.html) rnd)            Returns a positive BigInteger that is probably prime, with the specified bitLength. |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **BigInteger.**[**remainder**](http://docs.google.com/java/math/BigInteger.html#remainder(java.math.BigInteger))([BigInteger](http://docs.google.com/java/math/BigInteger.html) val)            Returns a BigInteger whose value is (this % val). |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **BigInteger.**[**setBit**](http://docs.google.com/java/math/BigInteger.html#setBit(int))(int n)            Returns a BigInteger whose value is equivalent to this BigInteger with the designated bit set. |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **BigInteger.**[**shiftLeft**](http://docs.google.com/java/math/BigInteger.html#shiftLeft(int))(int n)            Returns a BigInteger whose value is (this << n). |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **BigInteger.**[**shiftRight**](http://docs.google.com/java/math/BigInteger.html#shiftRight(int))(int n)            Returns a BigInteger whose value is (this >> n). |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **BigInteger.**[**subtract**](http://docs.google.com/java/math/BigInteger.html#subtract(java.math.BigInteger))([BigInteger](http://docs.google.com/java/math/BigInteger.html) val)            Returns a BigInteger whose value is (this - val). |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **BigDecimal.**[**toBigInteger**](http://docs.google.com/java/math/BigDecimal.html#toBigInteger())()            Converts this BigDecimal to a BigInteger. |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **BigDecimal.**[**toBigIntegerExact**](http://docs.google.com/java/math/BigDecimal.html#toBigIntegerExact())()            Converts this BigDecimal to a BigInteger, checking for lost information. |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **BigDecimal.**[**unscaledValue**](http://docs.google.com/java/math/BigDecimal.html#unscaledValue())()            Returns a BigInteger whose value is the *unscaled value* of this BigDecimal. |
| static [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **BigInteger.**[**valueOf**](http://docs.google.com/java/math/BigInteger.html#valueOf(long))(long val)            Returns a BigInteger whose value is equal to that of the specified long. |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **BigInteger.**[**xor**](http://docs.google.com/java/math/BigInteger.html#xor(java.math.BigInteger))([BigInteger](http://docs.google.com/java/math/BigInteger.html) val)            Returns a BigInteger whose value is (this ^ val). |

| Methods in [java.math](http://docs.google.com/java/math/package-summary.html) with parameters of type [BigInteger](http://docs.google.com/java/math/BigInteger.html) | |
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| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **BigInteger.**[**add**](http://docs.google.com/java/math/BigInteger.html#add(java.math.BigInteger))([BigInteger](http://docs.google.com/java/math/BigInteger.html) val)            Returns a BigInteger whose value is (this + val). |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **BigInteger.**[**and**](http://docs.google.com/java/math/BigInteger.html#and(java.math.BigInteger))([BigInteger](http://docs.google.com/java/math/BigInteger.html) val)            Returns a BigInteger whose value is (this & val). |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **BigInteger.**[**andNot**](http://docs.google.com/java/math/BigInteger.html#andNot(java.math.BigInteger))([BigInteger](http://docs.google.com/java/math/BigInteger.html) val)            Returns a BigInteger whose value is (this & ~val). |
| int | **BigInteger.**[**compareTo**](http://docs.google.com/java/math/BigInteger.html#compareTo(java.math.BigInteger))([BigInteger](http://docs.google.com/java/math/BigInteger.html) val)            Compares this BigInteger with the specified BigInteger. |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **BigInteger.**[**divide**](http://docs.google.com/java/math/BigInteger.html#divide(java.math.BigInteger))([BigInteger](http://docs.google.com/java/math/BigInteger.html) val)            Returns a BigInteger whose value is (this / val). |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html)[] | **BigInteger.**[**divideAndRemainder**](http://docs.google.com/java/math/BigInteger.html#divideAndRemainder(java.math.BigInteger))([BigInteger](http://docs.google.com/java/math/BigInteger.html) val)            Returns an array of two BigIntegers containing (this / val) followed by (this % val). |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **BigInteger.**[**gcd**](http://docs.google.com/java/math/BigInteger.html#gcd(java.math.BigInteger))([BigInteger](http://docs.google.com/java/math/BigInteger.html) val)            Returns a BigInteger whose value is the greatest common divisor of abs(this) and abs(val). |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **BigInteger.**[**max**](http://docs.google.com/java/math/BigInteger.html#max(java.math.BigInteger))([BigInteger](http://docs.google.com/java/math/BigInteger.html) val)            Returns the maximum of this BigInteger and val. |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **BigInteger.**[**min**](http://docs.google.com/java/math/BigInteger.html#min(java.math.BigInteger))([BigInteger](http://docs.google.com/java/math/BigInteger.html) val)            Returns the minimum of this BigInteger and val. |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **BigInteger.**[**mod**](http://docs.google.com/java/math/BigInteger.html#mod(java.math.BigInteger))([BigInteger](http://docs.google.com/java/math/BigInteger.html) m)            Returns a BigInteger whose value is (this mod m). |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **BigInteger.**[**modInverse**](http://docs.google.com/java/math/BigInteger.html#modInverse(java.math.BigInteger))([BigInteger](http://docs.google.com/java/math/BigInteger.html) m)            Returns a BigInteger whose value is (this-1 mod m). |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **BigInteger.**[**modPow**](http://docs.google.com/java/math/BigInteger.html#modPow(java.math.BigInteger,%20java.math.BigInteger))([BigInteger](http://docs.google.com/java/math/BigInteger.html) exponent, [BigInteger](http://docs.google.com/java/math/BigInteger.html) m)            Returns a BigInteger whose value is (thisexponent mod m). |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **BigInteger.**[**multiply**](http://docs.google.com/java/math/BigInteger.html#multiply(java.math.BigInteger))([BigInteger](http://docs.google.com/java/math/BigInteger.html) val)            Returns a BigInteger whose value is (this \* val). |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **BigInteger.**[**or**](http://docs.google.com/java/math/BigInteger.html#or(java.math.BigInteger))([BigInteger](http://docs.google.com/java/math/BigInteger.html) val)            Returns a BigInteger whose value is (this | val). |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **BigInteger.**[**remainder**](http://docs.google.com/java/math/BigInteger.html#remainder(java.math.BigInteger))([BigInteger](http://docs.google.com/java/math/BigInteger.html) val)            Returns a BigInteger whose value is (this % val). |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **BigInteger.**[**subtract**](http://docs.google.com/java/math/BigInteger.html#subtract(java.math.BigInteger))([BigInteger](http://docs.google.com/java/math/BigInteger.html) val)            Returns a BigInteger whose value is (this - val). |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **BigInteger.**[**xor**](http://docs.google.com/java/math/BigInteger.html#xor(java.math.BigInteger))([BigInteger](http://docs.google.com/java/math/BigInteger.html) val)            Returns a BigInteger whose value is (this ^ val). |

| Constructors in [java.math](http://docs.google.com/java/math/package-summary.html) with parameters of type [BigInteger](http://docs.google.com/java/math/BigInteger.html) | |
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| [**BigDecimal**](http://docs.google.com/java/math/BigDecimal.html#BigDecimal(java.math.BigInteger))([BigInteger](http://docs.google.com/java/math/BigInteger.html) val)            Translates a BigInteger into a BigDecimal. |
| [**BigDecimal**](http://docs.google.com/java/math/BigDecimal.html#BigDecimal(java.math.BigInteger,%20int))([BigInteger](http://docs.google.com/java/math/BigInteger.html) unscaledVal, int scale)            Translates a BigInteger unscaled value and an int scale into a BigDecimal. |
| [**BigDecimal**](http://docs.google.com/java/math/BigDecimal.html#BigDecimal(java.math.BigInteger,%20int,%20java.math.MathContext))([BigInteger](http://docs.google.com/java/math/BigInteger.html) unscaledVal, int scale, [MathContext](http://docs.google.com/java/math/MathContext.html) mc)            Translates a BigInteger unscaled value and an int scale into a BigDecimal, with rounding according to the context settings. |
| [**BigDecimal**](http://docs.google.com/java/math/BigDecimal.html#BigDecimal(java.math.BigInteger,%20java.math.MathContext))([BigInteger](http://docs.google.com/java/math/BigInteger.html) val, [MathContext](http://docs.google.com/java/math/MathContext.html) mc)            Translates a BigInteger into a BigDecimal rounding according to the context settings. |

| Uses of [BigInteger](http://docs.google.com/java/math/BigInteger.html) in [java.security.cert](http://docs.google.com/java/security/cert/package-summary.html) | |
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| Methods in [java.security.cert](http://docs.google.com/java/security/cert/package-summary.html) that return [BigInteger](http://docs.google.com/java/math/BigInteger.html) | |
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| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **X509CRLSelector.**[**getMaxCRL**](http://docs.google.com/java/security/cert/X509CRLSelector.html#getMaxCRL())()            Returns the maxCRLNumber criterion. |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **X509CRLSelector.**[**getMinCRL**](http://docs.google.com/java/security/cert/X509CRLSelector.html#getMinCRL())()            Returns the minCRLNumber criterion. |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **X509CertSelector.**[**getSerialNumber**](http://docs.google.com/java/security/cert/X509CertSelector.html#getSerialNumber())()            Returns the serialNumber criterion. |
| abstract  [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **X509CRLEntry.**[**getSerialNumber**](http://docs.google.com/java/security/cert/X509CRLEntry.html#getSerialNumber())()            Gets the serial number from this X509CRLEntry, the *userCertificate*. |
| abstract  [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **X509Certificate.**[**getSerialNumber**](http://docs.google.com/java/security/cert/X509Certificate.html#getSerialNumber())()            Gets the serialNumber value from the certificate. |

| Methods in [java.security.cert](http://docs.google.com/java/security/cert/package-summary.html) with parameters of type [BigInteger](http://docs.google.com/java/math/BigInteger.html) | |
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| abstract  [X509CRLEntry](http://docs.google.com/java/security/cert/X509CRLEntry.html) | **X509CRL.**[**getRevokedCertificate**](http://docs.google.com/java/security/cert/X509CRL.html#getRevokedCertificate(java.math.BigInteger))([BigInteger](http://docs.google.com/java/math/BigInteger.html) serialNumber)            Gets the CRL entry, if any, with the given certificate serialNumber. |
| void | **X509CRLSelector.**[**setMaxCRLNumber**](http://docs.google.com/java/security/cert/X509CRLSelector.html#setMaxCRLNumber(java.math.BigInteger))([BigInteger](http://docs.google.com/java/math/BigInteger.html) maxCRL)            Sets the maxCRLNumber criterion. |
| void | **X509CRLSelector.**[**setMinCRLNumber**](http://docs.google.com/java/security/cert/X509CRLSelector.html#setMinCRLNumber(java.math.BigInteger))([BigInteger](http://docs.google.com/java/math/BigInteger.html) minCRL)            Sets the minCRLNumber criterion. |
| void | **X509CertSelector.**[**setSerialNumber**](http://docs.google.com/java/security/cert/X509CertSelector.html#setSerialNumber(java.math.BigInteger))([BigInteger](http://docs.google.com/java/math/BigInteger.html) serial)            Sets the serialNumber criterion. |

| Uses of [BigInteger](http://docs.google.com/java/math/BigInteger.html) in [java.security.interfaces](http://docs.google.com/java/security/interfaces/package-summary.html) | |
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| Methods in [java.security.interfaces](http://docs.google.com/java/security/interfaces/package-summary.html) that return [BigInteger](http://docs.google.com/java/math/BigInteger.html) | |
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| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **RSAPrivateCrtKey.**[**getCrtCoefficient**](http://docs.google.com/java/security/interfaces/RSAPrivateCrtKey.html#getCrtCoefficient())()            Returns the crtCoefficient. |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **RSAMultiPrimePrivateCrtKey.**[**getCrtCoefficient**](http://docs.google.com/java/security/interfaces/RSAMultiPrimePrivateCrtKey.html#getCrtCoefficient())()            Returns the crtCoefficient. |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **DSAParams.**[**getG**](http://docs.google.com/java/security/interfaces/DSAParams.html#getG())()            Returns the base, g. |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **RSAKey.**[**getModulus**](http://docs.google.com/java/security/interfaces/RSAKey.html#getModulus())()            Returns the modulus. |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **DSAParams.**[**getP**](http://docs.google.com/java/security/interfaces/DSAParams.html#getP())()            Returns the prime, p. |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **RSAPrivateCrtKey.**[**getPrimeExponentP**](http://docs.google.com/java/security/interfaces/RSAPrivateCrtKey.html#getPrimeExponentP())()            Returns the primeExponentP. |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **RSAMultiPrimePrivateCrtKey.**[**getPrimeExponentP**](http://docs.google.com/java/security/interfaces/RSAMultiPrimePrivateCrtKey.html#getPrimeExponentP())()            Returns the primeExponentP. |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **RSAPrivateCrtKey.**[**getPrimeExponentQ**](http://docs.google.com/java/security/interfaces/RSAPrivateCrtKey.html#getPrimeExponentQ())()            Returns the primeExponentQ. |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **RSAMultiPrimePrivateCrtKey.**[**getPrimeExponentQ**](http://docs.google.com/java/security/interfaces/RSAMultiPrimePrivateCrtKey.html#getPrimeExponentQ())()            Returns the primeExponentQ. |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **RSAPrivateCrtKey.**[**getPrimeP**](http://docs.google.com/java/security/interfaces/RSAPrivateCrtKey.html#getPrimeP())()            Returns the primeP. |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **RSAMultiPrimePrivateCrtKey.**[**getPrimeP**](http://docs.google.com/java/security/interfaces/RSAMultiPrimePrivateCrtKey.html#getPrimeP())()            Returns the primeP. |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **RSAPrivateCrtKey.**[**getPrimeQ**](http://docs.google.com/java/security/interfaces/RSAPrivateCrtKey.html#getPrimeQ())()            Returns the primeQ. |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **RSAMultiPrimePrivateCrtKey.**[**getPrimeQ**](http://docs.google.com/java/security/interfaces/RSAMultiPrimePrivateCrtKey.html#getPrimeQ())()            Returns the primeQ. |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **RSAPrivateKey.**[**getPrivateExponent**](http://docs.google.com/java/security/interfaces/RSAPrivateKey.html#getPrivateExponent())()            Returns the private exponent. |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **RSAPublicKey.**[**getPublicExponent**](http://docs.google.com/java/security/interfaces/RSAPublicKey.html#getPublicExponent())()            Returns the public exponent. |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **RSAPrivateCrtKey.**[**getPublicExponent**](http://docs.google.com/java/security/interfaces/RSAPrivateCrtKey.html#getPublicExponent())()            Returns the public exponent. |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **RSAMultiPrimePrivateCrtKey.**[**getPublicExponent**](http://docs.google.com/java/security/interfaces/RSAMultiPrimePrivateCrtKey.html#getPublicExponent())()            Returns the public exponent. |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **DSAParams.**[**getQ**](http://docs.google.com/java/security/interfaces/DSAParams.html#getQ())()            Returns the subprime, q. |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **ECPrivateKey.**[**getS**](http://docs.google.com/java/security/interfaces/ECPrivateKey.html#getS())()            Returns the private value S. |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **DSAPrivateKey.**[**getX**](http://docs.google.com/java/security/interfaces/DSAPrivateKey.html#getX())()            Returns the value of the private key, x. |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **DSAPublicKey.**[**getY**](http://docs.google.com/java/security/interfaces/DSAPublicKey.html#getY())()            Returns the value of the public key, y. |

| Uses of [BigInteger](http://docs.google.com/java/math/BigInteger.html) in [java.security.spec](http://docs.google.com/java/security/spec/package-summary.html) | |
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| Fields in [java.security.spec](http://docs.google.com/java/security/spec/package-summary.html) declared as [BigInteger](http://docs.google.com/java/math/BigInteger.html) | |
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| static [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **RSAKeyGenParameterSpec.**[**F0**](http://docs.google.com/java/security/spec/RSAKeyGenParameterSpec.html#F0)            The public-exponent value F0 = 3. |
| static [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **RSAKeyGenParameterSpec.**[**F4**](http://docs.google.com/java/security/spec/RSAKeyGenParameterSpec.html#F4)            The public exponent-value F4 = 65537. |

| Methods in [java.security.spec](http://docs.google.com/java/security/spec/package-summary.html) that return [BigInteger](http://docs.google.com/java/math/BigInteger.html) | |
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| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **EllipticCurve.**[**getA**](http://docs.google.com/java/security/spec/EllipticCurve.html#getA())()            Returns the first coefficient a of the elliptic curve. |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **ECPoint.**[**getAffineX**](http://docs.google.com/java/security/spec/ECPoint.html#getAffineX())()            Returns the affine x-coordinate x. |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **ECPoint.**[**getAffineY**](http://docs.google.com/java/security/spec/ECPoint.html#getAffineY())()            Returns the affine y-coordinate y. |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **EllipticCurve.**[**getB**](http://docs.google.com/java/security/spec/EllipticCurve.html#getB())()            Returns the second coefficient b of the elliptic curve. |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **RSAMultiPrimePrivateCrtKeySpec.**[**getCrtCoefficient**](http://docs.google.com/java/security/spec/RSAMultiPrimePrivateCrtKeySpec.html#getCrtCoefficient())()            Returns the crtCoefficient. |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **RSAPrivateCrtKeySpec.**[**getCrtCoefficient**](http://docs.google.com/java/security/spec/RSAPrivateCrtKeySpec.html#getCrtCoefficient())()            Returns the crtCoefficient. |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **RSAOtherPrimeInfo.**[**getCrtCoefficient**](http://docs.google.com/java/security/spec/RSAOtherPrimeInfo.html#getCrtCoefficient())()            Returns the prime's crtCoefficient. |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **RSAOtherPrimeInfo.**[**getExponent**](http://docs.google.com/java/security/spec/RSAOtherPrimeInfo.html#getExponent())()            Returns the prime's exponent. |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **DSAPublicKeySpec.**[**getG**](http://docs.google.com/java/security/spec/DSAPublicKeySpec.html#getG())()            Returns the base g. |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **DSAPrivateKeySpec.**[**getG**](http://docs.google.com/java/security/spec/DSAPrivateKeySpec.html#getG())()            Returns the base g. |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **DSAParameterSpec.**[**getG**](http://docs.google.com/java/security/spec/DSAParameterSpec.html#getG())()            Returns the base g. |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **RSAPublicKeySpec.**[**getModulus**](http://docs.google.com/java/security/spec/RSAPublicKeySpec.html#getModulus())()            Returns the modulus. |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **RSAPrivateKeySpec.**[**getModulus**](http://docs.google.com/java/security/spec/RSAPrivateKeySpec.html#getModulus())()            Returns the modulus. |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **ECParameterSpec.**[**getOrder**](http://docs.google.com/java/security/spec/ECParameterSpec.html#getOrder())()            Returns the order of the generator. |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **DSAPublicKeySpec.**[**getP**](http://docs.google.com/java/security/spec/DSAPublicKeySpec.html#getP())()            Returns the prime p. |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **DSAPrivateKeySpec.**[**getP**](http://docs.google.com/java/security/spec/DSAPrivateKeySpec.html#getP())()            Returns the prime p. |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **DSAParameterSpec.**[**getP**](http://docs.google.com/java/security/spec/DSAParameterSpec.html#getP())()            Returns the prime p. |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **ECFieldFp.**[**getP**](http://docs.google.com/java/security/spec/ECFieldFp.html#getP())()            Returns the prime p of this prime finite field. |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **RSAOtherPrimeInfo.**[**getPrime**](http://docs.google.com/java/security/spec/RSAOtherPrimeInfo.html#getPrime())()            Returns the prime. |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **RSAMultiPrimePrivateCrtKeySpec.**[**getPrimeExponentP**](http://docs.google.com/java/security/spec/RSAMultiPrimePrivateCrtKeySpec.html#getPrimeExponentP())()            Returns the primeExponentP. |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **RSAPrivateCrtKeySpec.**[**getPrimeExponentP**](http://docs.google.com/java/security/spec/RSAPrivateCrtKeySpec.html#getPrimeExponentP())()            Returns the primeExponentP. |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **RSAMultiPrimePrivateCrtKeySpec.**[**getPrimeExponentQ**](http://docs.google.com/java/security/spec/RSAMultiPrimePrivateCrtKeySpec.html#getPrimeExponentQ())()            Returns the primeExponentQ. |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **RSAPrivateCrtKeySpec.**[**getPrimeExponentQ**](http://docs.google.com/java/security/spec/RSAPrivateCrtKeySpec.html#getPrimeExponentQ())()            Returns the primeExponentQ. |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **RSAMultiPrimePrivateCrtKeySpec.**[**getPrimeP**](http://docs.google.com/java/security/spec/RSAMultiPrimePrivateCrtKeySpec.html#getPrimeP())()            Returns the primeP. |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **RSAPrivateCrtKeySpec.**[**getPrimeP**](http://docs.google.com/java/security/spec/RSAPrivateCrtKeySpec.html#getPrimeP())()            Returns the primeP. |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **RSAMultiPrimePrivateCrtKeySpec.**[**getPrimeQ**](http://docs.google.com/java/security/spec/RSAMultiPrimePrivateCrtKeySpec.html#getPrimeQ())()            Returns the primeQ. |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **RSAPrivateCrtKeySpec.**[**getPrimeQ**](http://docs.google.com/java/security/spec/RSAPrivateCrtKeySpec.html#getPrimeQ())()            Returns the primeQ. |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **RSAPrivateKeySpec.**[**getPrivateExponent**](http://docs.google.com/java/security/spec/RSAPrivateKeySpec.html#getPrivateExponent())()            Returns the private exponent. |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **RSAMultiPrimePrivateCrtKeySpec.**[**getPublicExponent**](http://docs.google.com/java/security/spec/RSAMultiPrimePrivateCrtKeySpec.html#getPublicExponent())()            Returns the public exponent. |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **RSAPublicKeySpec.**[**getPublicExponent**](http://docs.google.com/java/security/spec/RSAPublicKeySpec.html#getPublicExponent())()            Returns the public exponent. |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **RSAPrivateCrtKeySpec.**[**getPublicExponent**](http://docs.google.com/java/security/spec/RSAPrivateCrtKeySpec.html#getPublicExponent())()            Returns the public exponent. |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **RSAKeyGenParameterSpec.**[**getPublicExponent**](http://docs.google.com/java/security/spec/RSAKeyGenParameterSpec.html#getPublicExponent())()            Returns the public-exponent value. |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **DSAPublicKeySpec.**[**getQ**](http://docs.google.com/java/security/spec/DSAPublicKeySpec.html#getQ())()            Returns the sub-prime q. |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **DSAPrivateKeySpec.**[**getQ**](http://docs.google.com/java/security/spec/DSAPrivateKeySpec.html#getQ())()            Returns the sub-prime q. |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **DSAParameterSpec.**[**getQ**](http://docs.google.com/java/security/spec/DSAParameterSpec.html#getQ())()            Returns the sub-prime q. |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **ECFieldF2m.**[**getReductionPolynomial**](http://docs.google.com/java/security/spec/ECFieldF2m.html#getReductionPolynomial())()            Returns a BigInteger whose i-th bit corresponds to the i-th coefficient of the reduction polynomial for polynomial basis or null for normal basis. |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **ECPrivateKeySpec.**[**getS**](http://docs.google.com/java/security/spec/ECPrivateKeySpec.html#getS())()            Returns the private value S. |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **DSAPrivateKeySpec.**[**getX**](http://docs.google.com/java/security/spec/DSAPrivateKeySpec.html#getX())()            Returns the private key x. |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **DSAPublicKeySpec.**[**getY**](http://docs.google.com/java/security/spec/DSAPublicKeySpec.html#getY())()            Returns the public key y. |

| Constructors in [java.security.spec](http://docs.google.com/java/security/spec/package-summary.html) with parameters of type [BigInteger](http://docs.google.com/java/math/BigInteger.html) | |
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| [**DSAParameterSpec**](http://docs.google.com/java/security/spec/DSAParameterSpec.html#DSAParameterSpec(java.math.BigInteger,%20java.math.BigInteger,%20java.math.BigInteger))([BigInteger](http://docs.google.com/java/math/BigInteger.html) p, [BigInteger](http://docs.google.com/java/math/BigInteger.html) q, [BigInteger](http://docs.google.com/java/math/BigInteger.html) g)            Creates a new DSAParameterSpec with the specified parameter values. |
| [**DSAPrivateKeySpec**](http://docs.google.com/java/security/spec/DSAPrivateKeySpec.html#DSAPrivateKeySpec(java.math.BigInteger,%20java.math.BigInteger,%20java.math.BigInteger,%20java.math.BigInteger))([BigInteger](http://docs.google.com/java/math/BigInteger.html) x, [BigInteger](http://docs.google.com/java/math/BigInteger.html) p, [BigInteger](http://docs.google.com/java/math/BigInteger.html) q, [BigInteger](http://docs.google.com/java/math/BigInteger.html) g)            Creates a new DSAPrivateKeySpec with the specified parameter values. |
| [**DSAPublicKeySpec**](http://docs.google.com/java/security/spec/DSAPublicKeySpec.html#DSAPublicKeySpec(java.math.BigInteger,%20java.math.BigInteger,%20java.math.BigInteger,%20java.math.BigInteger))([BigInteger](http://docs.google.com/java/math/BigInteger.html) y, [BigInteger](http://docs.google.com/java/math/BigInteger.html) p, [BigInteger](http://docs.google.com/java/math/BigInteger.html) q, [BigInteger](http://docs.google.com/java/math/BigInteger.html) g)            Creates a new DSAPublicKeySpec with the specified parameter values. |
| [**ECFieldF2m**](http://docs.google.com/java/security/spec/ECFieldF2m.html#ECFieldF2m(int,%20java.math.BigInteger))(int m, [BigInteger](http://docs.google.com/java/math/BigInteger.html) rp)            Creates an elliptic curve characteristic 2 finite field which has 2^m elements with polynomial basis. |
| [**ECFieldFp**](http://docs.google.com/java/security/spec/ECFieldFp.html#ECFieldFp(java.math.BigInteger))([BigInteger](http://docs.google.com/java/math/BigInteger.html) p)            Creates an elliptic curve prime finite field with the specified prime p. |
| [**ECParameterSpec**](http://docs.google.com/java/security/spec/ECParameterSpec.html#ECParameterSpec(java.security.spec.EllipticCurve,%20java.security.spec.ECPoint,%20java.math.BigInteger,%20int))([EllipticCurve](http://docs.google.com/java/security/spec/EllipticCurve.html) curve, [ECPoint](http://docs.google.com/java/security/spec/ECPoint.html) g, [BigInteger](http://docs.google.com/java/math/BigInteger.html) n, int h)            Creates elliptic curve domain parameters based on the specified values. |
| [**ECPoint**](http://docs.google.com/java/security/spec/ECPoint.html#ECPoint(java.math.BigInteger,%20java.math.BigInteger))([BigInteger](http://docs.google.com/java/math/BigInteger.html) x, [BigInteger](http://docs.google.com/java/math/BigInteger.html) y)            Creates an ECPoint from the specified affine x-coordinate x and affine y-coordinate y. |
| [**ECPrivateKeySpec**](http://docs.google.com/java/security/spec/ECPrivateKeySpec.html#ECPrivateKeySpec(java.math.BigInteger,%20java.security.spec.ECParameterSpec))([BigInteger](http://docs.google.com/java/math/BigInteger.html) s, [ECParameterSpec](http://docs.google.com/java/security/spec/ECParameterSpec.html) params)            Creates a new ECPrivateKeySpec with the specified parameter values. |
| [**EllipticCurve**](http://docs.google.com/java/security/spec/EllipticCurve.html#EllipticCurve(java.security.spec.ECField,%20java.math.BigInteger,%20java.math.BigInteger))([ECField](http://docs.google.com/java/security/spec/ECField.html) field, [BigInteger](http://docs.google.com/java/math/BigInteger.html) a, [BigInteger](http://docs.google.com/java/math/BigInteger.html) b)            Creates an elliptic curve with the specified elliptic field field and the coefficients a and b. |
| [**EllipticCurve**](http://docs.google.com/java/security/spec/EllipticCurve.html#EllipticCurve(java.security.spec.ECField,%20java.math.BigInteger,%20java.math.BigInteger,%20byte%5B%5D))([ECField](http://docs.google.com/java/security/spec/ECField.html) field, [BigInteger](http://docs.google.com/java/math/BigInteger.html) a, [BigInteger](http://docs.google.com/java/math/BigInteger.html) b, byte[] seed)            Creates an elliptic curve with the specified elliptic field field, the coefficients a and b, and the seed used for curve generation. |
| [**RSAKeyGenParameterSpec**](http://docs.google.com/java/security/spec/RSAKeyGenParameterSpec.html#RSAKeyGenParameterSpec(int,%20java.math.BigInteger))(int keysize, [BigInteger](http://docs.google.com/java/math/BigInteger.html) publicExponent)            Constructs a new RSAParameterSpec object from the given keysize and public-exponent value. |
| [**RSAMultiPrimePrivateCrtKeySpec**](http://docs.google.com/java/security/spec/RSAMultiPrimePrivateCrtKeySpec.html#RSAMultiPrimePrivateCrtKeySpec(java.math.BigInteger,%20java.math.BigInteger,%20java.math.BigInteger,%20java.math.BigInteger,%20java.math.BigInteger,%20java.math.BigInteger,%20java.math.BigInteger,%20java.math.BigInteger,%20java.security.spec.RSAOtherPrimeInfo%5B%5D))([BigInteger](http://docs.google.com/java/math/BigInteger.html) modulus, [BigInteger](http://docs.google.com/java/math/BigInteger.html) publicExponent, [BigInteger](http://docs.google.com/java/math/BigInteger.html) privateExponent, [BigInteger](http://docs.google.com/java/math/BigInteger.html) primeP, [BigInteger](http://docs.google.com/java/math/BigInteger.html) primeQ, [BigInteger](http://docs.google.com/java/math/BigInteger.html) primeExponentP, [BigInteger](http://docs.google.com/java/math/BigInteger.html) primeExponentQ, [BigInteger](http://docs.google.com/java/math/BigInteger.html) crtCoefficient, [RSAOtherPrimeInfo](http://docs.google.com/java/security/spec/RSAOtherPrimeInfo.html)[] otherPrimeInfo)            Creates a new RSAMultiPrimePrivateCrtKeySpec given the modulus, publicExponent, privateExponent, primeP, primeQ, primeExponentP, primeExponentQ, crtCoefficient, and otherPrimeInfo as defined in PKCS#1 v2.1. |
| [**RSAOtherPrimeInfo**](http://docs.google.com/java/security/spec/RSAOtherPrimeInfo.html#RSAOtherPrimeInfo(java.math.BigInteger,%20java.math.BigInteger,%20java.math.BigInteger))([BigInteger](http://docs.google.com/java/math/BigInteger.html) prime, [BigInteger](http://docs.google.com/java/math/BigInteger.html) primeExponent, [BigInteger](http://docs.google.com/java/math/BigInteger.html) crtCoefficient)            Creates a new RSAOtherPrimeInfo given the prime, primeExponent, and crtCoefficient as defined in PKCS#1. |
| [**RSAPrivateCrtKeySpec**](http://docs.google.com/java/security/spec/RSAPrivateCrtKeySpec.html#RSAPrivateCrtKeySpec(java.math.BigInteger,%20java.math.BigInteger,%20java.math.BigInteger,%20java.math.BigInteger,%20java.math.BigInteger,%20java.math.BigInteger,%20java.math.BigInteger,%20java.math.BigInteger))([BigInteger](http://docs.google.com/java/math/BigInteger.html) modulus, [BigInteger](http://docs.google.com/java/math/BigInteger.html) publicExponent, [BigInteger](http://docs.google.com/java/math/BigInteger.html) privateExponent, [BigInteger](http://docs.google.com/java/math/BigInteger.html) primeP, [BigInteger](http://docs.google.com/java/math/BigInteger.html) primeQ, [BigInteger](http://docs.google.com/java/math/BigInteger.html) primeExponentP, [BigInteger](http://docs.google.com/java/math/BigInteger.html) primeExponentQ, [BigInteger](http://docs.google.com/java/math/BigInteger.html) crtCoefficient)            Creates a new RSAPrivateCrtKeySpec given the modulus, publicExponent, privateExponent, primeP, primeQ, primeExponentP, primeExponentQ, and crtCoefficient as defined in PKCS#1. |
| [**RSAPrivateKeySpec**](http://docs.google.com/java/security/spec/RSAPrivateKeySpec.html#RSAPrivateKeySpec(java.math.BigInteger,%20java.math.BigInteger))([BigInteger](http://docs.google.com/java/math/BigInteger.html) modulus, [BigInteger](http://docs.google.com/java/math/BigInteger.html) privateExponent)            Creates a new RSAPrivateKeySpec. |
| [**RSAPublicKeySpec**](http://docs.google.com/java/security/spec/RSAPublicKeySpec.html#RSAPublicKeySpec(java.math.BigInteger,%20java.math.BigInteger))([BigInteger](http://docs.google.com/java/math/BigInteger.html) modulus, [BigInteger](http://docs.google.com/java/math/BigInteger.html) publicExponent)            Creates a new RSAPublicKeySpec. |

| Uses of [BigInteger](http://docs.google.com/java/math/BigInteger.html) in [java.util](http://docs.google.com/java/util/package-summary.html) | |
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| Methods in [java.util](http://docs.google.com/java/util/package-summary.html) that return [BigInteger](http://docs.google.com/java/math/BigInteger.html) | |
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| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **Scanner.**[**nextBigInteger**](http://docs.google.com/java/util/Scanner.html#nextBigInteger())()            Scans the next token of the input as a [BigInteger](http://docs.google.com/java/math/BigInteger.html). |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **Scanner.**[**nextBigInteger**](http://docs.google.com/java/util/Scanner.html#nextBigInteger(int))(int radix)            Scans the next token of the input as a [BigInteger](http://docs.google.com/java/math/BigInteger.html). |

| Uses of [BigInteger](http://docs.google.com/java/math/BigInteger.html) in [javax.crypto.interfaces](http://docs.google.com/javax/crypto/interfaces/package-summary.html) | |
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| Methods in [javax.crypto.interfaces](http://docs.google.com/javax/crypto/interfaces/package-summary.html) that return [BigInteger](http://docs.google.com/java/math/BigInteger.html) | |
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| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **DHPrivateKey.**[**getX**](http://docs.google.com/javax/crypto/interfaces/DHPrivateKey.html#getX())()            Returns the private value, x. |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **DHPublicKey.**[**getY**](http://docs.google.com/javax/crypto/interfaces/DHPublicKey.html#getY())()            Returns the public value, y. |

| Uses of [BigInteger](http://docs.google.com/java/math/BigInteger.html) in [javax.crypto.spec](http://docs.google.com/javax/crypto/spec/package-summary.html) | |
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| Methods in [javax.crypto.spec](http://docs.google.com/javax/crypto/spec/package-summary.html) that return [BigInteger](http://docs.google.com/java/math/BigInteger.html) | |
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| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **DHParameterSpec.**[**getG**](http://docs.google.com/javax/crypto/spec/DHParameterSpec.html#getG())()            Returns the base generator g. |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **DHPrivateKeySpec.**[**getG**](http://docs.google.com/javax/crypto/spec/DHPrivateKeySpec.html#getG())()            Returns the base generator g. |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **DHPublicKeySpec.**[**getG**](http://docs.google.com/javax/crypto/spec/DHPublicKeySpec.html#getG())()            Returns the base generator g. |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **DHParameterSpec.**[**getP**](http://docs.google.com/javax/crypto/spec/DHParameterSpec.html#getP())()            Returns the prime modulus p. |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **DHPrivateKeySpec.**[**getP**](http://docs.google.com/javax/crypto/spec/DHPrivateKeySpec.html#getP())()            Returns the prime modulus p. |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **DHPublicKeySpec.**[**getP**](http://docs.google.com/javax/crypto/spec/DHPublicKeySpec.html#getP())()            Returns the prime modulus p. |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **DHPrivateKeySpec.**[**getX**](http://docs.google.com/javax/crypto/spec/DHPrivateKeySpec.html#getX())()            Returns the private value x. |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **DHPublicKeySpec.**[**getY**](http://docs.google.com/javax/crypto/spec/DHPublicKeySpec.html#getY())()            Returns the public value y. |

| Constructors in [javax.crypto.spec](http://docs.google.com/javax/crypto/spec/package-summary.html) with parameters of type [BigInteger](http://docs.google.com/java/math/BigInteger.html) | |
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| [**DHParameterSpec**](http://docs.google.com/javax/crypto/spec/DHParameterSpec.html#DHParameterSpec(java.math.BigInteger,%20java.math.BigInteger))([BigInteger](http://docs.google.com/java/math/BigInteger.html) p, [BigInteger](http://docs.google.com/java/math/BigInteger.html) g)            Constructs a parameter set for Diffie-Hellman, using a prime modulus p and a base generator g. |
| [**DHParameterSpec**](http://docs.google.com/javax/crypto/spec/DHParameterSpec.html#DHParameterSpec(java.math.BigInteger,%20java.math.BigInteger,%20int))([BigInteger](http://docs.google.com/java/math/BigInteger.html) p, [BigInteger](http://docs.google.com/java/math/BigInteger.html) g, int l)            Constructs a parameter set for Diffie-Hellman, using a prime modulus p, a base generator g, and the size in bits, l, of the random exponent (private value). |
| [**DHPrivateKeySpec**](http://docs.google.com/javax/crypto/spec/DHPrivateKeySpec.html#DHPrivateKeySpec(java.math.BigInteger,%20java.math.BigInteger,%20java.math.BigInteger))([BigInteger](http://docs.google.com/java/math/BigInteger.html) x, [BigInteger](http://docs.google.com/java/math/BigInteger.html) p, [BigInteger](http://docs.google.com/java/math/BigInteger.html) g)            Constructor that takes a private value x, a prime modulus p, and a base generator g. |
| [**DHPublicKeySpec**](http://docs.google.com/javax/crypto/spec/DHPublicKeySpec.html#DHPublicKeySpec(java.math.BigInteger,%20java.math.BigInteger,%20java.math.BigInteger))([BigInteger](http://docs.google.com/java/math/BigInteger.html) y, [BigInteger](http://docs.google.com/java/math/BigInteger.html) p, [BigInteger](http://docs.google.com/java/math/BigInteger.html) g)            Constructor that takes a public value y, a prime modulus p, and a base generator g. |

| Uses of [BigInteger](http://docs.google.com/java/math/BigInteger.html) in [javax.management.openmbean](http://docs.google.com/javax/management/openmbean/package-summary.html) | |
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| Fields in [javax.management.openmbean](http://docs.google.com/javax/management/openmbean/package-summary.html) with type parameters of type [BigInteger](http://docs.google.com/java/math/BigInteger.html) | |
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| static [SimpleType](http://docs.google.com/javax/management/openmbean/SimpleType.html)<[BigInteger](http://docs.google.com/java/math/BigInteger.html)> | **SimpleType.**[**BIGINTEGER**](http://docs.google.com/javax/management/openmbean/SimpleType.html#BIGINTEGER)            The SimpleType instance describing values whose Java class name is java.math.BigInteger. |

| Uses of [BigInteger](http://docs.google.com/java/math/BigInteger.html) in [javax.security.cert](http://docs.google.com/javax/security/cert/package-summary.html) | |
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| Methods in [javax.security.cert](http://docs.google.com/javax/security/cert/package-summary.html) that return [BigInteger](http://docs.google.com/java/math/BigInteger.html) | |
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| abstract  [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **X509Certificate.**[**getSerialNumber**](http://docs.google.com/javax/security/cert/X509Certificate.html#getSerialNumber())()            Gets the serialNumber value from the certificate. |

| Uses of [BigInteger](http://docs.google.com/java/math/BigInteger.html) in [javax.xml.bind](http://docs.google.com/javax/xml/bind/package-summary.html) | |
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| Methods in [javax.xml.bind](http://docs.google.com/javax/xml/bind/package-summary.html) that return [BigInteger](http://docs.google.com/java/math/BigInteger.html) | |
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| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **DatatypeConverterInterface.**[**parseInteger**](http://docs.google.com/javax/xml/bind/DatatypeConverterInterface.html#parseInteger(java.lang.String))([String](http://docs.google.com/java/lang/String.html) lexicalXSDInteger)             Convert the string argument into a BigInteger value. |
| static [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **DatatypeConverter.**[**parseInteger**](http://docs.google.com/javax/xml/bind/DatatypeConverter.html#parseInteger(java.lang.String))([String](http://docs.google.com/java/lang/String.html) lexicalXSDInteger)             Convert the string argument into a BigInteger value. |

| Methods in [javax.xml.bind](http://docs.google.com/javax/xml/bind/package-summary.html) with parameters of type [BigInteger](http://docs.google.com/java/math/BigInteger.html) | |
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| [String](http://docs.google.com/java/lang/String.html) | **DatatypeConverterInterface.**[**printInteger**](http://docs.google.com/javax/xml/bind/DatatypeConverterInterface.html#printInteger(java.math.BigInteger))([BigInteger](http://docs.google.com/java/math/BigInteger.html) val)             Converts a BigInteger value into a string. |
| static [String](http://docs.google.com/java/lang/String.html) | **DatatypeConverter.**[**printInteger**](http://docs.google.com/javax/xml/bind/DatatypeConverter.html#printInteger(java.math.BigInteger))([BigInteger](http://docs.google.com/java/math/BigInteger.html) val)             Converts a BigInteger value into a string. |

| Uses of [BigInteger](http://docs.google.com/java/math/BigInteger.html) in [javax.xml.crypto.dsig.keyinfo](http://docs.google.com/javax/xml/crypto/dsig/keyinfo/package-summary.html) | |
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| Methods in [javax.xml.crypto.dsig.keyinfo](http://docs.google.com/javax/xml/crypto/dsig/keyinfo/package-summary.html) that return [BigInteger](http://docs.google.com/java/math/BigInteger.html) | |
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| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **X509IssuerSerial.**[**getSerialNumber**](http://docs.google.com/javax/xml/crypto/dsig/keyinfo/X509IssuerSerial.html#getSerialNumber())()            Returns the serial number of this X509IssuerSerial. |

| Methods in [javax.xml.crypto.dsig.keyinfo](http://docs.google.com/javax/xml/crypto/dsig/keyinfo/package-summary.html) with parameters of type [BigInteger](http://docs.google.com/java/math/BigInteger.html) | |
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| abstract  [X509IssuerSerial](http://docs.google.com/javax/xml/crypto/dsig/keyinfo/X509IssuerSerial.html) | **KeyInfoFactory.**[**newX509IssuerSerial**](http://docs.google.com/javax/xml/crypto/dsig/keyinfo/KeyInfoFactory.html#newX509IssuerSerial(java.lang.String,%20java.math.BigInteger))([String](http://docs.google.com/java/lang/String.html) issuerName, [BigInteger](http://docs.google.com/java/math/BigInteger.html) serialNumber)            Creates an X509IssuerSerial from the specified X.500 issuer distinguished name and serial number. |

| Uses of [BigInteger](http://docs.google.com/java/math/BigInteger.html) in [javax.xml.datatype](http://docs.google.com/javax/xml/datatype/package-summary.html) | |
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| Methods in [javax.xml.datatype](http://docs.google.com/javax/xml/datatype/package-summary.html) that return [BigInteger](http://docs.google.com/java/math/BigInteger.html) | |
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| abstract  [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **XMLGregorianCalendar.**[**getEon**](http://docs.google.com/javax/xml/datatype/XMLGregorianCalendar.html#getEon())()            Return high order component for XML Schema 1.0 dateTime datatype field for year. |
| abstract  [BigInteger](http://docs.google.com/java/math/BigInteger.html) | **XMLGregorianCalendar.**[**getEonAndYear**](http://docs.google.com/javax/xml/datatype/XMLGregorianCalendar.html#getEonAndYear())()            Return XML Schema 1.0 dateTime datatype field for year. |

| Methods in [javax.xml.datatype](http://docs.google.com/javax/xml/datatype/package-summary.html) with parameters of type [BigInteger](http://docs.google.com/java/math/BigInteger.html) | |
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| abstract  [Duration](http://docs.google.com/javax/xml/datatype/Duration.html) | **DatatypeFactory.**[**newDuration**](http://docs.google.com/javax/xml/datatype/DatatypeFactory.html#newDuration(boolean,%20java.math.BigInteger,%20java.math.BigInteger,%20java.math.BigInteger,%20java.math.BigInteger,%20java.math.BigInteger,%20java.math.BigDecimal))(boolean isPositive, [BigInteger](http://docs.google.com/java/math/BigInteger.html) years, [BigInteger](http://docs.google.com/java/math/BigInteger.html) months, [BigInteger](http://docs.google.com/java/math/BigInteger.html) days, [BigInteger](http://docs.google.com/java/math/BigInteger.html) hours, [BigInteger](http://docs.google.com/java/math/BigInteger.html) minutes, [BigDecimal](http://docs.google.com/java/math/BigDecimal.html) seconds)            Obtain a new instance of a Duration specifying the Duration as isPositive, years, months, days, hours, minutes, seconds. |
| [Duration](http://docs.google.com/javax/xml/datatype/Duration.html) | **DatatypeFactory.**[**newDurationDayTime**](http://docs.google.com/javax/xml/datatype/DatatypeFactory.html#newDurationDayTime(boolean,%20java.math.BigInteger,%20java.math.BigInteger,%20java.math.BigInteger,%20java.math.BigInteger))(boolean isPositive, [BigInteger](http://docs.google.com/java/math/BigInteger.html) day, [BigInteger](http://docs.google.com/java/math/BigInteger.html) hour, [BigInteger](http://docs.google.com/java/math/BigInteger.html) minute, [BigInteger](http://docs.google.com/java/math/BigInteger.html) second)            Create a Duration of type xdt:dayTimeDuration using the specified day, hour, minute and second as defined in  [XQuery 1.0 and XPath 2.0 Data Model, xdt:dayTimeDuration](http://www.w3.org/TR/xpath-datamodel#dt-dayTimeDuration). |
| [Duration](http://docs.google.com/javax/xml/datatype/Duration.html) | **DatatypeFactory.**[**newDurationYearMonth**](http://docs.google.com/javax/xml/datatype/DatatypeFactory.html#newDurationYearMonth(boolean,%20java.math.BigInteger,%20java.math.BigInteger))(boolean isPositive, [BigInteger](http://docs.google.com/java/math/BigInteger.html) year, [BigInteger](http://docs.google.com/java/math/BigInteger.html) month)            Create a Duration of type xdt:yearMonthDuration using the specified year and month as defined in  [XQuery 1.0 and XPath 2.0 Data Model, xdt:yearMonthDuration](http://www.w3.org/TR/xpath-datamodel#dt-yearMonthyDuration). |
| abstract  [XMLGregorianCalendar](http://docs.google.com/javax/xml/datatype/XMLGregorianCalendar.html) | **DatatypeFactory.**[**newXMLGregorianCalendar**](http://docs.google.com/javax/xml/datatype/DatatypeFactory.html#newXMLGregorianCalendar(java.math.BigInteger,%20int,%20int,%20int,%20int,%20int,%20java.math.BigDecimal,%20int))([BigInteger](http://docs.google.com/java/math/BigInteger.html) year, int month, int day, int hour, int minute, int second, [BigDecimal](http://docs.google.com/java/math/BigDecimal.html) fractionalSecond, int timezone)            Constructor allowing for complete value spaces allowed by W3C XML Schema 1.0 recommendation for xsd:dateTime and related builtin datatypes. |
| abstract  void | **XMLGregorianCalendar.**[**setYear**](http://docs.google.com/javax/xml/datatype/XMLGregorianCalendar.html#setYear(java.math.BigInteger))([BigInteger](http://docs.google.com/java/math/BigInteger.html) year)            Set low and high order component of XSD dateTime year field. |

| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | [**Class**](http://docs.google.com/java/math/BigInteger.html) | **Use** | [**Tree**](http://docs.google.com/package-tree.html) | [**Deprecated**](http://docs.google.com/deprecated-list.html) | [**Index**](http://docs.google.com/index-files/index-1.html) | [**Help**](http://docs.google.com/help-doc.html) | | --- | --- | --- | --- | --- | --- | --- | --- | | | ***Java™ Platform***  ***Standard Ed. 6*** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| PREV   NEXT | [**FRAMES**](http://docs.google.com/index.html?java/math//class-useBigInteger.html)    [**NO FRAMES**](http://docs.google.com/BigInteger.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |

[Submit a bug or feature](http://bugs.sun.com/services/bugreport/index.jsp)

For further API reference and developer documentation, see [Java SE Developer Documentation](http://docs.google.com/webnotes/devdocs-vs-specs.html). That documentation contains more detailed, developer-targeted descriptions, with conceptual overviews, definitions of terms, workarounds, and working code examples.

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