**Java Math Class Methods**

**Must try at least 2 methods in each group**

1. **Basic Methods**

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| **Method** | **Description** |
| [Math.abs()](https://www.javatpoint.com/java-math-abs-method) | It will return the Absolute value of the given value. |
| [Math.max()](https://www.javatpoint.com/java-math-max-method) | It returns the Largest of two values. |
| [Math.min()](https://www.javatpoint.com/java-math-min-method) | It is used to return the Smallest of two values. |
| [Math.round()](https://www.javatpoint.com/java-math-round-method) | It is used to round of the decimal numbers to the nearest value. |
| [Math.sqrt()](https://www.javatpoint.com/java-math-sqrt-method) | It is used to return the square root of a number. |
| [Math.cbrt()](https://www.javatpoint.com/java-math-cbrt-method) | It is used to return the cube root of a number. |
| [Math.pow()](https://www.javatpoint.com/java-math-pow-method) | It returns the value of first argument raised to the power to second argument. |
| [Math.signum()](https://www.javatpoint.com/java-math-signum-method) | It is used to find the sign of a given value. |
| [Math.ceil()](https://www.javatpoint.com/java-math-ceil-method) | It is used to find the smallest integer value that is greater than or equal to the argument or mathematical integer. |
| [Math.copySign()](https://www.javatpoint.com/java-math-copysign-method) | It is used to find the Absolute value of first argument along with sign specified in second argument. |
| [Math.nextAfter()](https://www.javatpoint.com/java-math-nextafter-method) | It is used to return the floating-point number adjacent to the first argument in the direction of the second argument. |
| [Math.nextUp()](https://www.javatpoint.com/java-math-nextup-method) | It returns the floating-point value adjacent to d in the direction of positive infinity. |
| [Math.nextDown()](https://www.javatpoint.com/java-math-nextdown-method) | It returns the floating-point value adjacent to d in the direction of negative infinity. |
| [Math.floor()](https://www.javatpoint.com/java-math-floor-method) | It is used to find the largest integer value which is less than or equal to the argument and is equal to the mathematical integer of a double value. |
| [Math.floorDiv()](https://www.javatpoint.com/java-math-floordiv-method) | It is used to find the largest integer value that is less than or equal to the algebraic quotient. |
| [Math.random()](https://www.javatpoint.com/java-math-random-method) | It returns a double value with a positive sign, greater than or equal to 0.0 and less than 1.0. |
| [Math.rint()](https://www.javatpoint.com/java-math-rint-method) | It returns the double value that is closest to the given argument and equal to mathematical integer. |
| [Math.hypot()](https://www.javatpoint.com/java-math-hypot-method) | It returns sqrt(x2 +y2) without intermediate overflow or underflow. |
| [Math.ulp()](https://www.javatpoint.com/java-math-ulp-method) | It returns the size of an ulp of the argument. |
| [Math.getExponent()](https://www.javatpoint.com/java-math-getexponent-method) | It is used to return the unbiased exponent used in the representation of a value. |
| [Math.IEEEremainder()](https://www.javatpoint.com/java-math-ieeeremainder-method) | It is used to calculate the remainder operation on two arguments as prescribed by the IEEE 754 standard and returns value. |
| [Math.addExact()](https://www.javatpoint.com/java-math-addexact-method) | It is used to return the sum of its arguments, throwing an exception if the result overflows an int or long. |
| [Math.subtractExact()](https://www.javatpoint.com/java-math-subtractexact-method) | It returns the difference of the arguments, throwing an exception if the result overflows an int. |
| [Math.multiplyExact()](https://www.javatpoint.com/java-math-multiplyexact-method) | It is used to return the product of the arguments, throwing an exception if the result overflows an int or long. |
| [Math.incrementExact()](https://www.javatpoint.com/java-math-incrementexact-method) | It returns the argument incremented by one, throwing an exception if the result overflows an int. |
| [Math.decrementExact()](https://www.javatpoint.com/java-math-decrementexact-method) | It is used to return the argument decremented by one, throwing an exception if the result overflows an int or long. |
| [Math.negateExact()](https://www.javatpoint.com/java-math-negateexact-method) | It is used to return the negation of the argument, throwing an exception if the result overflows an int or long. |
| [Math.toIntExact()](https://www.javatpoint.com/java-math-tointexact-method) | It returns the value of the long argument, throwing an exception if the value overflows an int. |

1. Logarithmic Math Methods

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| **Method** | **Description** |
| [Math.log()](https://www.javatpoint.com/java-math-log-method) | It returns the natural logarithm of a double value. |
| [Math.log10()](https://www.javatpoint.com/java-math-log10-method) | It is used to return the base 10 logarithm of a double value. |
| [Math.log1p()](https://www.javatpoint.com/java-math-log1p-method) | It returns the natural logarithm of the sum of the argument and 1. |
| [Math.exp()](https://www.javatpoint.com/java-math-exp-method) | It returns E raised to the power of a double value, where E is Euler's number and it is approximately equal to 2.71828. |
| [Math.expm1()](https://www.javatpoint.com/java-math-expm1-method) | It is used to calculate the power of E and subtract one from it. |

1. Trigonometric Math Methods

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| **Method** | **Description** |
| [Math.sin()](https://www.javatpoint.com/java-math-sin-method) | It is used to return the trigonometric Sine value of a Given double value. |
| [Math.cos()](https://www.javatpoint.com/java-math-cos-method) | It is used to return the trigonometric Cosine value of a Given double value. |
| [Math.tan()](https://www.javatpoint.com/java-math-tan-method) | It is used to return the trigonometric Tangent value of a Given double value. |
| [Math.asin()](https://www.javatpoint.com/java-math-asin-method) | It is used to return the trigonometric Arc Sine value of a Given double value |
| [Math.acos()](https://www.javatpoint.com/java-math-acos-method) | It is used to return the trigonometric Arc Cosine value of a Given double value. |
| [Math.atan()](https://www.javatpoint.com/java-math-atan-method) | It is used to return the trigonometric Arc Tangent value of a Given double value. |

1. Hyperbolic Math Methods

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| **Method** | **Description** |
| [Math.sinh()](https://www.javatpoint.com/java-math-sinh-method) | It is used to return the trigonometric Hyperbolic Cosine value of a Given double value. |
| [Math.cosh()](https://www.javatpoint.com/java-math-cosh-method) | It is used to return the trigonometric Hyperbolic Sine value of a Given double value. |
| [Math.tanh()](https://www.javatpoint.com/java-math-tanh-method) | It is used to return the trigonometric Hyperbolic Tangent value of a Given double value. |

1. Angular Math Methods

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| **Method** | **Description** |
| [Math.toDegrees](https://www.javatpoint.com/java-math-todegrees-method) | It is used to convert the specified Radians angle to equivalent angle measured in Degrees. |
| [Math.toRadians](https://www.javatpoint.com/java-math-toradians-method) | It is used to convert the specified Degrees angle to equivalent angle measured in Radians. |