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| |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/MyDouble.html) | [**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) | | |  |
| PREV CLASS   NEXT CLASS | [**FRAMES**](http://docs.google.com/index.html?MyDouble.html)    [**NO FRAMES**](http://docs.google.com/MyDouble.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
| SUMMARY: NESTED | FIELD | [CONSTR](#3znysh7) | [METHOD](#2et92p0) | DETAIL: FIELD | [CONSTR](#3dy6vkm) | [METHOD](#2s8eyo1) |

## Class MyDouble

java.lang.Object  
 **MyDouble**

public class **MyDouble**extends java.lang.Object

MyDouble objects represent floating point values.

**Author:** Fawzi Emad

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| **Constructor Summary** | |
| [**MyDouble**](http://docs.google.com/MyDouble.html#MyDouble(double))(double d)            Initializes the new MyDouble object so that it represents the value of the parameter. |
| [**MyDouble**](http://docs.google.com/MyDouble.html#MyDouble(MyDouble))([MyDouble](http://docs.google.com/MyDouble.html) m)            Copy Constructor. |

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| **Method Summary** | |
| [MyDouble](http://docs.google.com/MyDouble.html) | [**abs**](http://docs.google.com/MyDouble.html#abs())()            Returns the absolute value of the current object. |
| [MyDouble](http://docs.google.com/MyDouble.html) | [**add**](http://docs.google.com/MyDouble.html#add(MyDouble))([MyDouble](http://docs.google.com/MyDouble.html) x)            Returns the sum of the current object and the parameter. |
| int | [**compareTo**](http://docs.google.com/MyDouble.html#compareTo(MyDouble))([MyDouble](http://docs.google.com/MyDouble.html) x)            Compares the current object to the parameter. |
| [MyDouble](http://docs.google.com/MyDouble.html) | [**divide**](http://docs.google.com/MyDouble.html#divide(MyDouble))([MyDouble](http://docs.google.com/MyDouble.html) x)            Returns the quotient obtained when dividing the current object by the parameter. |
| boolean | [**equals**](http://docs.google.com/MyDouble.html#equals(MyDouble))([MyDouble](http://docs.google.com/MyDouble.html) x)            Checks if the current object is equal to the parameter. |
| [MyDouble](http://docs.google.com/MyDouble.html) | [**multiply**](http://docs.google.com/MyDouble.html#multiply(MyDouble))([MyDouble](http://docs.google.com/MyDouble.html) x)            Returns the product of the current object and the parameter. |
| [MyDouble](http://docs.google.com/MyDouble.html) | [**sqrt**](http://docs.google.com/MyDouble.html#sqrt())()            Returns a MyDouble representing the square root of the current object. |
| [MyDouble](http://docs.google.com/MyDouble.html) | [**subtract**](http://docs.google.com/MyDouble.html#subtract(MyDouble))([MyDouble](http://docs.google.com/MyDouble.html) x)            Returns the difference obtained by subtracting the parameter from the current object. |
| java.lang.String | [**toString**](http://docs.google.com/MyDouble.html#toString())()            YOU MAY NOT CALL THIS METHOD EXCEPT WHILE YOU ARE IMPLEMENTING THE toString METHOD OF THE COMPLEX NUMBER CLASS!! Returns a String representation of the current object. |

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| **Methods inherited from class java.lang.Object** |
| equals, getClass, hashCode, notify, notifyAll, wait, wait, wait |

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| **Constructor Detail** |

### MyDouble

public **MyDouble**(double d)

Initializes the new MyDouble object so that it represents the value of the parameter.

**Parameters:**d - value to be "wrapped" in the object

### MyDouble

public **MyDouble**([MyDouble](http://docs.google.com/MyDouble.html) m)

Copy Constructor. Initializes the new MyDouble object so that it represents the same value as that of the parameter.

**Parameters:**m - existing MyDouble object that is being copied

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| **Method Detail** |

### add

public [MyDouble](http://docs.google.com/MyDouble.html) **add**([MyDouble](http://docs.google.com/MyDouble.html) x)

Returns the sum of the current object and the parameter. Note: This method does not modify the current object.

**Parameters:**x - the value that serves as the second operand for the addition **Returns:**a MyDouble object that represents the sum of the current object and the parameter

### subtract

public [MyDouble](http://docs.google.com/MyDouble.html) **subtract**([MyDouble](http://docs.google.com/MyDouble.html) x)

Returns the difference obtained by subtracting the parameter from the current object. Note: This method does not modify the current object.

**Parameters:**x - the value to be subtracted **Returns:**a MyDouble object that represents the current object minus the parameter

### multiply

public [MyDouble](http://docs.google.com/MyDouble.html) **multiply**([MyDouble](http://docs.google.com/MyDouble.html) x)

Returns the product of the current object and the parameter. Note: This method does not modify the current object.

**Parameters:**x - the value that serves as the second operand for the multiplication **Returns:**the product of the current object and the parameter

### divide

public [MyDouble](http://docs.google.com/MyDouble.html) **divide**([MyDouble](http://docs.google.com/MyDouble.html) x)

Returns the quotient obtained when dividing the current object by the parameter. Note: This method does not modify the current object.

**Parameters:**x - the value that serves as the divisor **Returns:**the result of dividing the current object by the parameter

### sqrt

public [MyDouble](http://docs.google.com/MyDouble.html) **sqrt**()

Returns a MyDouble representing the square root of the current object. Note: This method does not modify the current object.

**Returns:**the square root of the current object

### compareTo

public int **compareTo**([MyDouble](http://docs.google.com/MyDouble.html) x)

Compares the current object to the parameter.

**Parameters:**x - the object being compared with the current object **Returns:**a negative value if the current object is less than the parameter, zero if the current object equals the parameter, a positive value if the current object is larger than the parameter. NOTE: Due to the lack of precision in comparing floating point values, in cases where the two values are NEARLY equal, this method will return 0.

### equals

public boolean **equals**([MyDouble](http://docs.google.com/MyDouble.html) x)

Checks if the current object is equal to the parameter.

**Parameters:**x - the object being compared for equality with the current object **Returns:**true if the current object is equal to the parameter, false otherwise. NOTE: Due to the lack of precision in comparing floating point values, in cases where the two values are NEARLY equal, this method will return true.

### abs

public [MyDouble](http://docs.google.com/MyDouble.html) **abs**()

Returns the absolute value of the current object.

**Returns:**a MyDouble representing the absolute value of the current object.

### toString

public java.lang.String **toString**()

YOU MAY NOT CALL THIS METHOD EXCEPT WHILE YOU ARE IMPLEMENTING THE toString METHOD OF THE COMPLEX NUMBER CLASS!! Returns a String representation of the current object.

**Overrides:**toString in class java.lang.Object

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