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| --- |
| **Complex** |
| # realNumber:double  # imaginaryNumber:double |
| Complex()  Complex(real:double)  Complex(real:double, imaginary:double)  +getReal():double  +getImag():double  +setReal(m:double):void  +addition(o1:Complex, o2:Complex):Complex  +subtraction(o1:Complex, o2:Complex):Complex  +multiplication(o1:Complex,  o2:Complex):Complex  +divide(o1:Complex, o2:Complex):Complex  +absolute(o1:Complex): Complex  +toString():String  <<Override>>  +compareTo(n:Complex):int  <<Override>>  +clone():Complex  <<Override>> |

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| **<<Interface>>**  **Comparable** |
| +compareTo(o:T):int |

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| --- |
| **<<Interface>>** |
| +clone():Object |

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| --- |
| **<<Abstract>>**  **GenericMatrix** |
| GenericMatrix();  *#add(o1:E, o2:E):E*  *#multiply(o1:E, o2:E):E*  *#zero():E*  +addMatrix(matrix1:E[][], matrix2:E[][]):E[][]  +multiplyMatrix(matrix1: E[][], matrix2:E[][]):E[][]  +printResult(m1:Object, m2:Object, m3:Object, op:char):void |

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| **Comparator** |
| +compare (a:ComplexMatrix, b: ComplexMatrix):int  <<Override>> |

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| --- |
| **ComplexMatrix** |
| #matrix:Complex[][]  #row:int  #column:int  #realPart:double  #imagPart:double |
| ComplexMatrix (a:Complex[][])  +getReal():double  +getImag():double  #add(o1:Complex, o2:Complex):Complex  <<Override>>  #multiply(o1:Complex, o2:Complex):Complex <<Override>>  #zero():Complex  <<Override>>  +addMatrix(matrix1: Complex[][], matrix2: Complex[][]): Complex[][]  <Override>>  +multiplyMatrix(matrix1: Complex[][], matrix2: Complex[][]):Complex[][]  <<Override>>  +toString():String  <<Override>>  +compareTo  (n:ComplexMatrix):int  <<Override>> |