## Complex + ComplexNumber(double r = 0.0, double i = 0.0):){} + double getReal() const; +double getImag()const; +void setReal( int r); +void setImag( int i); +double complexNumber() const; +ComplexNumber operator +(const ComplexNumber& other); +ComplexNumber operator -(const ComplexNumber& other); +friend ostream& operator <<(ostream& out, const +ComplexNumber& c); +bool operator <(ComplexNumber& other); - double real: double imag; Real +RealNumber(double r = 0.0):ComplexNumber(r,0.0){} +RealNumber operator +(const RealNumber& other); +RealNumber operator -(const RealNumber& other); +friend ostream& operator <<(ostream& out, const +RealNumber& r); bool operator <(RealNumber& other); Rational Irrational +RationalNumber(int nom , int denom )){} +int getNominator() const; +int getDenominator()const; +void setNominator( int nom); +IrrationalNumber(double r = 0.0): RealNumber(r){} +IrrationalNumber operator +(const IrrationalNumber& other); +void setDenominator( int denom); +void setDenominator[ int denom); +double rational[ const; +RationalNumber operator +(const RationalNumber& other); +RationalNumber operator -(const RationalNumber& other); +RationalNumber operator -(const RationalNumber& other); +bool operator -(grationalNumber& other); +IrrationalNumber operator -(const IrrationalNumber& other); +friend ostream& operator <<(ostream& out, const IrrationalNumber& r); +bool operator <(IrrationalNumber& other); +int nominator; +int denominator; +int gcd(int num1, int num2) const; Integer +Integer(int i = 0): RationalNumber(i,1){} +Integer operator +(const Integer& other); +Integer operator -(const Integer & other); +friend ostream& operator <<(ostream& out, const Integer& i); +bool operator <(Integer& other); Natural +NaturalNumber(); +NaturalNumber(int i); +NaturalNumber operator +(const NaturalNumber& other); +NaturalNumber operator -(const NaturalNumber& other); +friend ostream& operator <<(ostream& out, const NaturalNumber& i); +bool operator <(NaturalNumber& other);

**Imaginary** 

+friend ostream& operator <<(ostream& out, const Imaginary Number& i);

+ImaginaryNumber(double i = 0.0): ComplexNumber(0.0,i){} +ImaginaryNumber operator +(const ImaginaryNumber& other);

+bool operator <(ImaginaryNumber& other);

+ImaginaryNumber operator -(const ImaginaryNumber& other);