

recsolver

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Chapter 1

Class Index

1.1 Class List

Here are the classes, structs, unions and interfaces with brief descriptions:

[splnum](#)

Datatype to handle roots of quadratic equations with integral coefficients without float approximations

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Chapter 2

Class Documentation

2.1 splnum Class Reference

Datatype to handle roots of quadratic equations with integral coefficients without float approximations.

Public Member Functions

- `splnum` (int a, int b, int c, int d=1)
 *$(a + b * \text{root}(c)) / d$*
- `splnum` (int a)
a special case of `splnum` in the form of a (integer type)
- `splnum` (int a, int d)
a special case of `splnum` in the form of a / d (rational number)
- `splnum inverse` () const
reciprocal of the number
- `splnum operator-` () const
- `splnum operator+` (const `splnum` &other) const
- `splnum operator-` (const `splnum` &other) const
- `splnum operator*` (const `splnum` &other) const
- `splnum operator/` (const `splnum` &other) const
- `bool operator==` (const `splnum` &other) const
- `bool operator!=` (const `splnum` &other) const
- `splnum & operator=` (const `splnum` &other)=default

Friends

- `std::ostream & operator<<` (std::ostream &out, const `splnum` &x)

2.1.1 Detailed Description

Datatype to handle roots of quadratic equations with integral coefficients without float approximations.

implemented operations doesn't handle exhaustive cases, but are intended to handle solving second order recurrence relation

2.1.2 Constructor & Destructor Documentation

2.1.2.1 splnum() [1/3]

```
splnum::splnum (
    int a,
    int b,
    int c,
    int d = 1 ) [inline]
```

$(a + b * \text{root}(c)) / d$

Can assume rational / irrational / complex values

Parameters

<i>a</i>	
<i>b</i>	
<i>c</i>	under root part
<i>d</i>	denominator

2.1.2.2 splnum() [2/3]

```
splnum::splnum (
    int a ) [inline]
```

a special case of splnum in the form of a (integer type)

supports implicit conversion from integers

Parameters

<i>a</i>	integer
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2.1.2.3 splnum() [3/3]

```
splnum::splnum (
    int a,
    int d ) [inline]
```

a special case of splnum in the form of a / d (rational number)

Parameters

a	numerator
d	denominator

2.1.3 Member Function Documentation

2.1.3.1 inverse()

```
splnum splnum::inverse ( ) const [inline]
```

reciprocal of the number

Returns

The documentation for this class was generated from the following file:

- main.cpp

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