

complex.reciprocal

...

```
Copy fnreciprocal(self:T)->T;
```

...

Returns a the reciprocal of the complex number (i.e. $1/z$).

Args

- self
- (T
-) - The input complex number.
-

Returns

The reciprocal of the complex number $(a + bi)$ is given by: $\left[\frac{1}{a + bi} = \frac{a}{a^2 + b^2} - \frac{b}{a^2 + b^2}i \right]$

Examples

...

```
Copy useorion::numbers::complex_number::{complex_trait::ComplexTrait, complex64::complex64}; useorion::numbers::{FP64x64,FP64x64Impl,FixedTrait};
```

```
fnreciprocal_complex64_example()->complex64 { letz:complex64=ComplexTrait::new(FixedTrait::new(73786976294838206464,false), FixedTrait::new(774763251095801167872,false) );// 4 + 42i z.reciprocal() }  
  
    {real:{mag:41453357469010228, sign:false}, im:{mag:435260253424607397, sign:true}}//  
    0.002247191011 - 0.0235955056 i
```

...

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