

Fraction

COLLABORATORS

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Chapter 1

Fraction

1.1 Fractional numbers implementation for AmigaTalk© 1998:

The Class Fraction is an implementation of rational numbers (i.e., ones with a numerator & denominator) for the AmigaTalk system.

The parent Class is Magnitude.

The methods defined for Class Fraction are:

new

Initialize a new instance of Class Fraction.

numerator

Return the Integer that represents the numerator.

denominator

Return the Integer that represents the denominator.

fraction

Return the Float that represents the Fraction.

asFloat

Return the Fraction as a floating point number. Report an error if the denominator is zero.

coerce: aNumber

Transform aNumber to a Fraction.

numerator: newNum

Change the numerator of the receiver to newNum.

denominator: newDenom

Change the denominator of the receiver to newDenom.

reciprocal

Invert the Fraction & report an error if the old numerator was zero, resulting in an improper Fraction. Return the floating point representation of the Fraction.

+ aNumber

Add aNumber to the receiver Fraction. If aNumber is not a Fraction, transform it into one first.
Return the floating-point representation of the result.

- aNumber

Subtract aNumber to the receiver Fraction. If aNumber is not a Fraction, transform it into one first.
Return the floating-point representation of the result.

* aNumber

Multiply aNumber to the receiver Fraction. If aNumber is not a Fraction, transform it into one first.
Return the floating-point representation of the result.

/ aNumber

Divide aNumber to the receiver Fraction. If aNumber is not a Fraction, transform it into one first.
Return the floating-point representation of the result.

printString

Print the receiver as a String.

== aNumber

Test whether the receiver is equal to aNumber.

~= aNumber

Test whether the receiver is NOT equal to aNumber.

< aNumber

Test whether the receiver is less than aNumber.

> aNumber

Test whether the receiver is greater than aNumber.

<= aNumber

Test whether the receiver is less than or equal to aNumber.

>= aNumber

Test whether the receiver is greater than or equal to aNumber.
