

# Package ‘FRACTION’

August 24, 2023

**Type** Package  
**Title** Numeric Number into Fraction  
**Version** 1.1.1  
**Date** 2023-08-21  
**Author** OuYang Ming <oula2004@163.com>  
**Maintainer** OuYang Ming <oula2004@163.com>  
**Description** Turn numeric,data.frame,matrix into fraction form.  
**License** GPL-2  
**Encoding** UTF-8  
**Repository** CRAN  
**Date/Publication** 2023-08-24 05:50:02 UTC  
**NeedsCompilation** no

## R topics documented:

FRACTION-package . . . . .	1
fra . . . . .	2
fra.m . . . . .	3
gcd . . . . .	4
is.wholenumber . . . . .	5

<b>Index</b>	<b>6</b>
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FRACTION-package	<i>Numeric Number into Fraction</i>
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## Description

Turn numeric,data.frame,matrix into fraction form.

## Details

Package: FRACTION  
Type: Package  
Version: 1.1.1  
Date: 2023-08-21  
License: licenseInfo

### Author(s)

OuYang Ming Maintainer: OuYang Ming <oula2004@163.com>

### References

Friedrich Leisch, 2008 Creating R packages: A Tutorial Zhang Jinlong, How to create R package under Windows FAQ in R-PROJECT

### Examples

```
r=8
is.wholenumber(r)
a=14
b=32
c=gcd(a,b)
x=1/6
fra(x)
y=c(1/2,1/3,1/9)
fra.m(y)
z=data.frame(1/2)
fra.m(z)
q=matrix(1)
fra.m(q)
```

---

fra

*FRACTION for number*

---

### Description

to turn numeric number into fraction form

### Usage

```
fra(x, j = 7)
```

### Arguments

x                    a numeric number  
j                    Decimal digits default is 7

**Value**

Return a character which shows the fraction equals x, x is a number

**Author(s)**

OuYang Ming

**References**

Friedrich Leisch, 2008 Creating R packages: A Tutorial Zhang Jinlong, How to create R package under Windows

**Examples**

```
x=1/3  
fra(x)
```

---

fra.m

*FRACTION for vector, matrix or data.frame*

---

**Description**

to turn vector, data.frame, matrix into fraction form

**Usage**

```
fra.m(x)
```

**Arguments**

x                      Vector, matrix or data.frame which contains numeric number

**Value**

Return a character which shows the fraction equals x, x is a data.frame or matrix or vector

**Author(s)**

OuYang Ming

**References**

Friedrich Leisch, 2008 Creating R packages: A Tutorial Zhang Jinlong, How to create R package under Windows

**Examples**

```
y=c(1/2,1/3,1/9)
fra.m(y)
z=data.frame(1/2)
fra.m(z)
q=matrix(1)
fra.m(q)
```

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gcd

*Greatest common divisor*

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**Description**

Calculate the greatest common divisor between two numbers

**Usage**

```
gcd(a, b)
```

**Arguments**

a	a is greater than 0 while a is whole number
b	b is greater than 0 while b is whole number

**Details**

Uses Euclidean algorithm

**Value**

the greatest common divisor between a and b

**Author(s)**

OuYang Ming

**References**

Friedrich Leisch, 2008 Creating R packages: A Tutorial Zhang Jinlong, How to create R package under Windows FAQ in R-PROJECT

**Examples**

```
a=14
b=32
c=gcd(a,b)
```

---

is.wholenumber      *To judge the number is whole number or not*

---

**Description**

To judge the number is whole number or not

**Usage**

```
is.wholenumber(x, tol = .Machine$double.eps^0.5)
```

**Arguments**

x	x is a numeric number
tol	Define in function

**Value**

Return TRUE or FALSE to judge x is whole number or not

**Author(s)**

OuYang Ming

**References**

Friedrich Leisch, 2008 Creating R packages: A Tutorial Zhang Jinlong, How to create R package under Windows FAQ in R-PROJECT

**Examples**

```
r=8  
is.wholenumber(r)
```

# Index

\* **caculate**

fra, [2](#)

\* **greatest common divisor**

gcd, [4](#)

\* **is.**

is.wholenumber, [5](#)

\* **turn**

fra.m, [3](#)

fra, [2](#)

fra.m, [3](#)

FRACTION (FRACTION-package), [1](#)

FRACTION-package, [1](#)

gcd, [4](#)

is.wholenumber, [5](#)