

インストール方法

統計ソフト R

Google

CRAN

①「CRAN」で検索

すべて

地図

動画

ニュース

画像

もっと見る

設定

ツール

約 36,100,000 件 (0.38 秒)

The Comprehensive R Archive Network

②検索結果をクリック

<https://cran.r-project.org/> ▼ このページを訳す

What are R and CRAN? R is 'GNU S', a freely available language and environment for statistical computing and graphics which provides a wide variety of statistical and graphical techniques: linear and nonlinear modelling, statistical tests, ...



③「Mirros」をクリック

CRAN
[Mirrors](#)
[What's new?](#)
[Task Views](#)
[Search](#)

About R
[R Homepage](#)
[The R Journal](#)

Software
[R Sources](#)
[R Binaries](#)
[Packages](#)
[Other](#)

Documentation
[Manuals](#)
[FAQs](#)
[Contributed](#)

The Comprehensive R Archive Network

Download and Install R

Precompiled binary distributions of the base system and contributed packages, **Windows and Mac** users most likely want one of these versions of R:

- [Download R for Linux](#)
- [Download R for \(Mac\) OS X](#)
- [Download R for Windows](#)

⑤Windowsは、ここをクリック

R is part of many Linux distributions, you should check with your Linux package management system in addition to the link above.

Source Code for all Platforms

Windows and Mac users most likely want to download the precompiled binaries listed in the upper box, not the source code. The sources have to be compiled before you can use them. If you do not know what this means, you probably do not want to do it!

- The latest release (2018-12-20, Eggshell Igloo) [R-3.5.2.tar.gz](#), read [what's new](#) in the latest version.
- Sources of [R alpha and beta releases](#) (daily snapshots, created only in time periods before a planned release).
- Daily snapshots of current patched and development versions are [available here](#). Please read about [new features and bug fixes](#) before filing corresponding feature requests or bug reports.
- Source code of older versions of R is [available here](#).
- Contributed extension [packages](#)

Questions About R

- If you have questions about R like how to download and install the software, or what the license terms are, please read our [answers to frequently asked questions](#) before you send an email.

Italy

<http://cran.mirror.garr.it/mirrors/CRAN/>

<https://cran.stat.unipd.it/>

<http://cran.stat.unipd.it/>

④Japan内のここをクリック

Japan

<https://cran.ism.ac.jp/>

<http://cran.ism.ac.jp/>

<https://ftp.yz.yamagata-u.ac.jp/pub/cran/>

Garr Mirror, Milano

University of Padua

University of Padua

The Institute of Statistical Mathematics, Tokyo

The Institute of Statistical Mathematics, Tokyo

Yamagata University

⑥「base」をクリック

Subdirectories:

[base](#)Binaries for base distribution. This is what you want to [install R for the first time](#).[contrib](#)Binaries of contributed CRAN packages (for R $\geq$ 2.13.x; managed by Uwe Ligges). There is also information on [third party software](#) available for CRAN Windows services and corresponding environment and make variables.[old contrib](#)

Binaries of contributed CRAN packages for outdated versions of R (for R < 2.13.x; managed by Uwe Ligges).

[Rtools](#)

Tools to build R and R packages. This is what you want to build your own packages on Windows, or to build R itself.

Please do not submit binaries to CRAN. Package developers might want to contact Uwe Ligges directly in case of questions / suggestions related to Windows binaries.

You may also want to read the [R FAQ](#) and [R for Windows FAQ](#).

Note: CRAN does some checks on these binaries for viruses, but cannot give guarantees. Use the normal precautions with downloaded executables.

⑦「Download R 3.5.2 for Windows」をクリック

R-3.5.2 for Windows (32/64 bit)

[Download R 3.5.2 for Windows](#) (79 megabytes, 32/64 bit)[Installation and other instructions](#)[New features in this version](#)

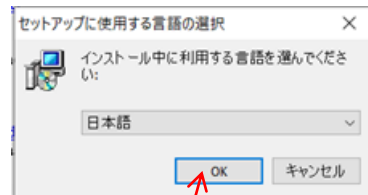
⑧「実行」をクリック

cran.ism.ac.jp から R-3.5.2-win.exe (78.8 MB) を実行または保存しますか?

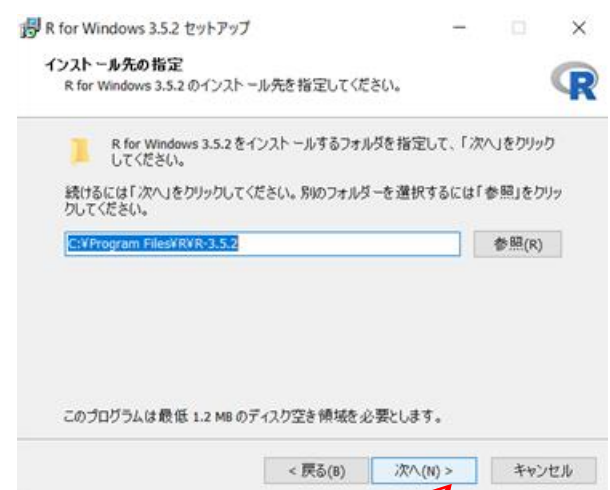
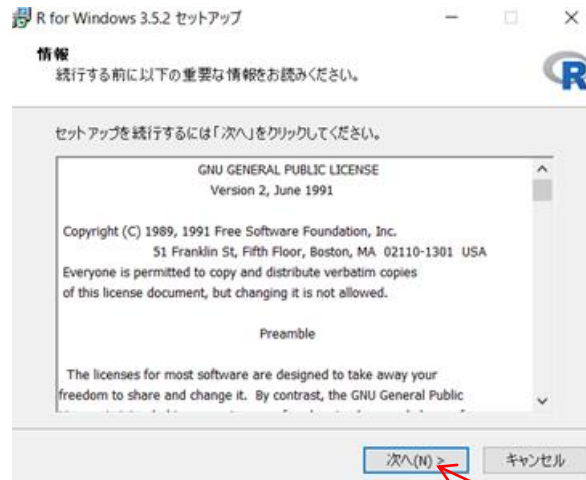
実行(R)

保存(S)

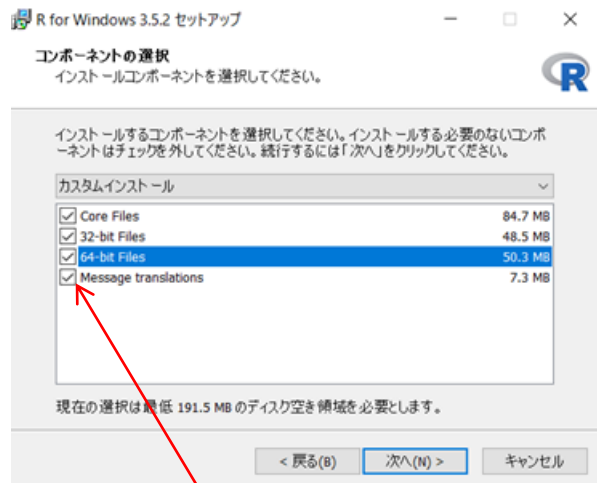
キャンセル(C)



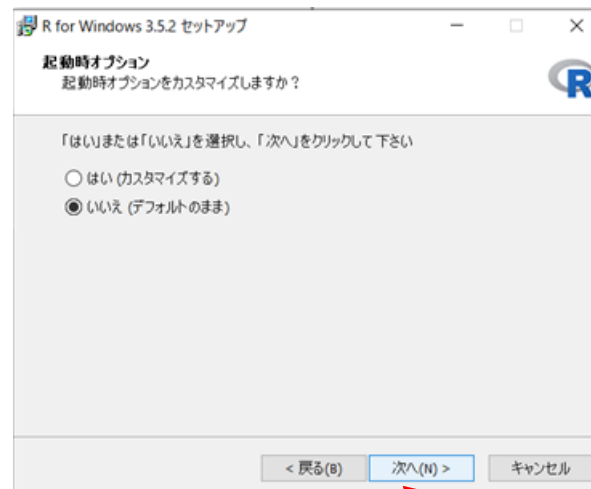
⑨「OK」をクリック



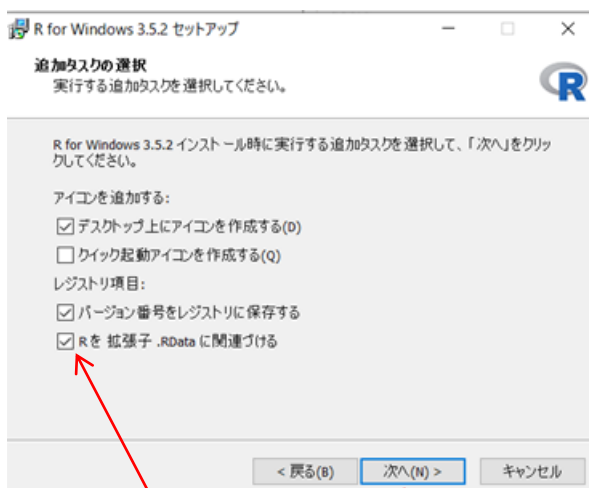
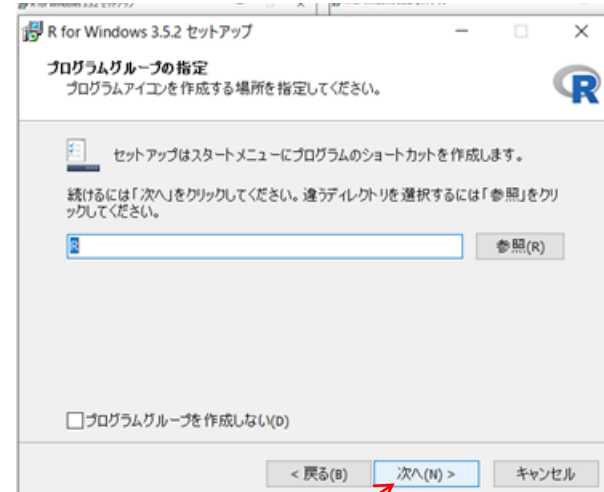
⑩、⑪「次へ」をクリック



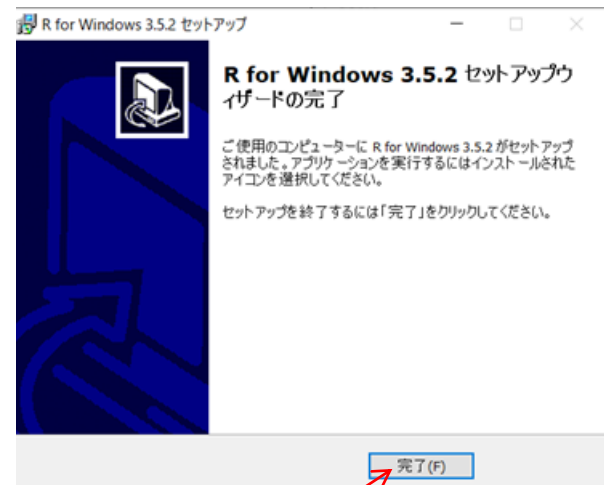
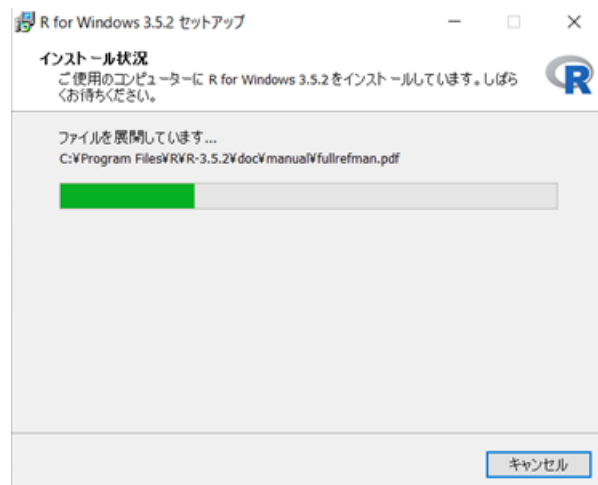
⑫□にレ点を入れて「次へ」をクリック



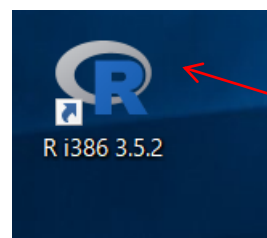
⑬、⑭「次へ」をクリック



⑮□にレ点を入れて「次へ」をクリック



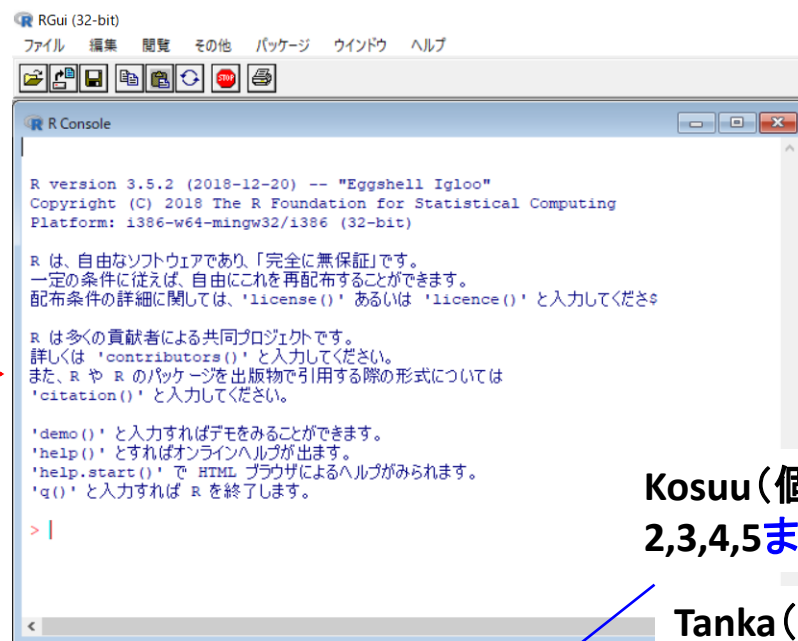
⑯「完了」をクリック



⑰デスクトップにアイコン表示



⑱アイコンをクリックすると →
右の画面が現れる



Kosuu(個数)という変数に
2,3,4,5まとめて(c)代入

⑲「>(プロンプト)」の後ろに
キーボードより入力して
リターン

```
> 1+2+3*3+(4+5)/3
[1] 15
> 5^2
[1] 25
> x<-2
> x*100
[1] 200
> Kosuu<-3
> Tanka<-10
> Kosuu*Tanka
[1] 150
> |
```

四則計算
計算結果
5²
計算結果
変数xに2を代入
xに100をかける
計算結果
Kosuuに3を代入
Tankaに50を代入
Kosuu × Tanka
計算結果

Tanka(単価)という変数に
10を代入

```
> Kosuu<-c(2,3,4,5)
> tanka<-10
> Kosuu*Tanka
[1] 20 30 40 50
> Kosuu<-1:10
> Kosuu*Tanka
[1] 10 20 30 40 50 60 70 80 90 100
> Tanka<-c(10,50)
> Kosuu<-matrix(c(2,3,5,10,12,14),3)
> Kosuu
      [,1] [,2]
[1,]    2   10
[2,]    3   12
[3,]    5   14
> Kosuu*Tanka
      [,1] [,2]
[1,]   20  500
[2,]  150 1200
[3,]   50  700
> |
```

個数 × 単価
計算結果
個数に1~10まで代入
単価に10と50を代入
個数に列が2,3,5と10,12,14
で3行のマトリックスを代入
個数のマトリックスを表示
個数と単価のマトリックス計算と
その計算結果

<- は矢印に見えませんか？ 代入の意

```

> x<-c(1,2,3,4,5,6,7,8,9,10)
> sum(x)
[1] 55
> mean(x)
[1] 5.5
> range(x)
[1] 1 10
> max(x)
[1] 10
> min(x)
[1] 1
> var(x)
[1] 9.166667
> sd(x)
[1] 3.02765
> |

```

変数xに1～10をまとめて代入

xの合計(sum)
 平均(mean)
 範囲(range)
 最大値(max)
 最小値(min)
 分散(var)
 標準偏差(sd)

```

> data()
> |

```

data()でデータのライブラリーを表示

```

R data sets

state.center (state)  US State Facts and Figures
state.division (state)

state.name (state)    US State Facts and Figures
state.region (state)  US State Facts and Figures
state.x77 (state)     US State Facts and Figures
sunspot.month         Monthly Sunspot Data, from 1749 to "Present"
sunspot.year          Yearly Sunspot Data, 1700-1988
sunspots              Monthly Sunspot Numbers, 1749-1983
swiss                  Swiss Fertility and Socioeconomic Indicators
                      (1888) Data
treering              Yearly Treering Data, -6000-1979
trees                 Girth, Height and Volume for Black Cherry
                      Trees
uspop                 Populations Recorded by the US Census
volcano               Topographic Information on Auckland's Maunga
                      Whau Volcano
warpbreaks            The Number of Breaks in Yarn during Weaving
women                 Average Heights and Weights for American
                      Women

```

Use 'data(package = .packages(all.available = TRUE))' to list the data sets in all *available* packages.

anscombeというデータを読み、表示

```

> data(anscombe)
> anscombe
  x1 x2 x3 x4  y1  y2  y3  y4
1 10 10 10 8  8.04 9.14 7.46 6.58
2  8  8  8 8  6.95 8.14 6.77 5.76
3 13 13 13 8  7.58 8.74 12.74 7.71
4  9  9  9 8  8.81 8.77  7.11 8.84
5 11 11 11 8  8.33 9.26  7.81 8.47
6 14 14 14 8  9.96 8.10  8.84 7.04
7  6  6  6 8  7.24 6.13  6.08 5.25
8  4  4  4 19 4.26 3.10  5.39 12.50
9 12 12 12 8 10.84 9.13  8.15 5.56
10 7  7  7 8  4.82 7.26  6.42 7.91
11 5  5  5 8  5.68 4.74  5.73 6.89
> |

```

```

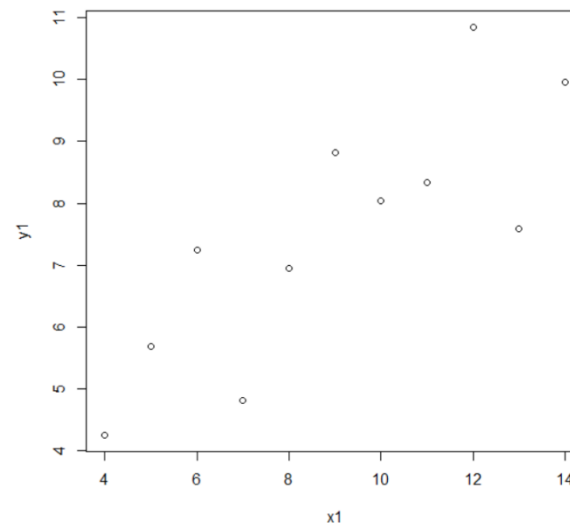
> plot(anscombe[,c(1,5)])
> x<-anscombe[,1]
> y<-anscombe[,5]
> cor(x,y)
[1] 0.8164205
> |

```

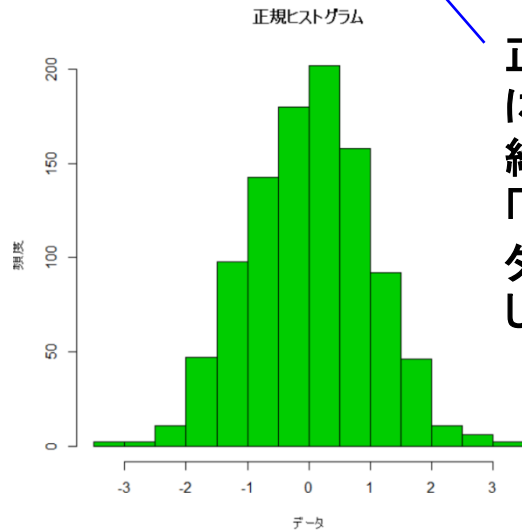
anscombeの1列と5列目のデータを用いて散布図をプロット

xに1列のデータ、yに5列目のデータを代入

xとyの相関係数を算出

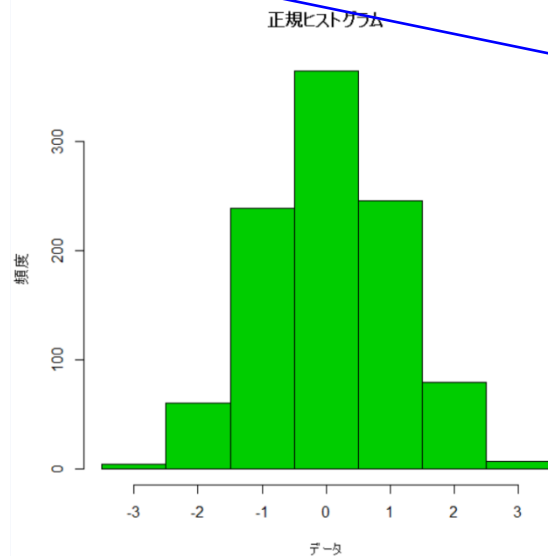


```
> hist(rnorm(1000),col=3,xlab="データ",ylab="頻度",main="正規ヒストグラム")
> |
```

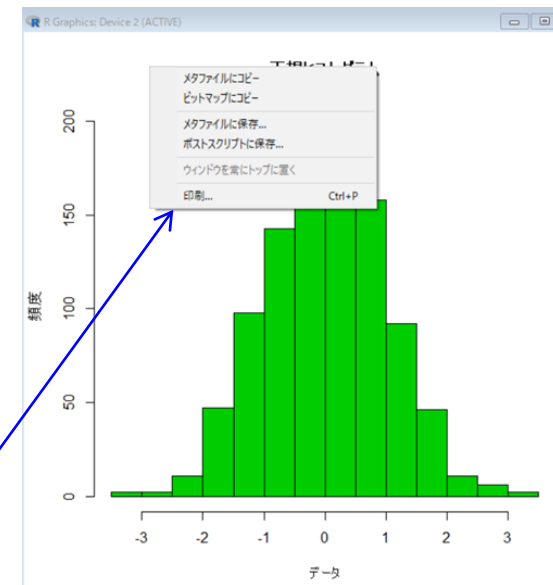


正規分布の1000個の乱数について出現する頻度を緑色 (col=3)、x軸ラベルに「データ」、y軸ラベルに「頻度」タイトルに「正規ヒストグラム」としてヒストグラムを描く

```
> haba<-c(-3.5,-2.5,-1.5,-0.5,0.5,1.5,2.5,3.5)
> hist(rnorm(1000),col=3,xlab="データ",ylab="頻度",main="正規ヒストグラム",breaks=haba)
> |
```



ヒストグラムの幅を規定して描く



図上で右クリックして「メタファイル」に保存するとワード等の文書にペーストできる