



# Quick-R

accessing the power of R

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## Data Management

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## R in Action



[R in Action](#) (2nd ed) significantly expands upon this material. Use promo code **ria38** for a 38% discount.

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## Creating new variables

Use the assignment operator `<-` to create new variables. A wide array of [operators](#) and [functions](#) are available here.

```
# Three examples for doing the same computations
```

```
mydata$sum <- mydata$x1 + mydata$x2
mydata$mean <- (mydata$x1 + mydata$x2)/2
```

```
attach(mydata)
mydata$sum <- x1 + x2
mydata$mean <- (x1 + x2)/2
detach(mydata)
```

```
mydata <- transform( mydata,
  sum = x1 + x2,
  mean = (x1 + x2)/2
)
```

## Recoding variables

In order to recode data, you will probably use one or more of R's [control structures](#).

```
# create 2 age categories
mydata$agecat <- ifelse(mydata$age > 70,
  c("older"), c("younger"))
```

```
# another example: create 3 age categories
attach(mydata)
mydata$agecat[age > 75] <- "Elder"
mydata$agecat[age > 45 & age <= 75] <- "Middle Aged"
mydata$agecat[age <= 45] <- "Young"
detach(mydata)
```

## Renaming variables

You can rename variables programmatically or interactively.

```
# rename interactively
fix(mydata) # results are saved on close
```

```
# rename programmatically
library(reshape)
mydata <- rename(mydata, c(olddname="newname"))
```

```
# you can re-enter all the variable names in order
```

```
# changing the ones you need to change.the limitation  
# is that you need to enter all of them!  
names(mydata) <- c("x1","age","y", "ses")
```

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