

R version 3.2.0 (2015-04-16) -- "Full of Ingredients"
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Platform: x86_64-apple-darwin13.4.0 (64-bit)

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Natural language support but running in an English locale

R is a collaborative project with many contributors.
Type 'contributors()' for more information and
'citation()' on how to cite R or R packages in publications.

Type 'demo()' for some demos, 'help()' for on-line help, or
'help.start()' for an HTML browser interface to help.
Type 'q()' to quit R.

```
> > options(STERM='iESS', str.dendrogram.last="", editor='emacsclient', show.error.locations=TRUE)
>
>
> ff=function(x){ifelse(x<0,1,1+x)}
> xx0=seq(-2,2,len=1000)
>
> xx=(runif(10)-.5)*4
> yy=ff(xx)+rnorm(10,sd=.5)
> or=order(xx)
> plot(xx[or],yy[or],type='b')
> ff(0)
[1] 1
> xx=(runif(20)-.5)*4
> yy=ff(xx)+rnorm(20,sd=.5)
> fit1=lm(yy~xx)
> fit2=lm(yy~xx+I(xx^2))
> fit3=lm(yy~poly(xx,10))
> pdf(file="hockeyFits.pdf")
> plot(xx,yy,pch=8)
> lines(xx0,ff(xx0),lty=2,lwd=1)
> points(xx0,predict(fit1,newdata=data.frame(xx=xx0)),pch=16,cex=.3,col='blue')
> points(xx0,predict(fit2,newdata=data.frame(xx=xx0)),pch=16,cex=.3,col='green')
> points(xx0,predict(fit3,newdata=data.frame(xx=xx0)),pch=16,cex=0.3,col='red')
> legend(-1.75,2.5,legend=c("true f","linear","quadratic","poly-10"),lwd=2,lty=c(2,1,1,1),col=c("black","blue","green","red"))
> dev.off()
quartz
  2
> fit2

Call:
lm(formula = yy ~ xx + I(xx^2))

Coefficients:
(Intercept)          xx          I(xx^2)
    1.3175      0.5895      0.2630

> fit1

Call:
lm(formula = yy ~ xx)

Coefficients:
(Intercept)          xx
    1.6658      0.5588

> fit3

Call:
lm(formula = yy ~ poly(xx, 10))

Coefficients:
(Intercept)          xx
    1.6658      0.5588

> fit4=lm(yy~xx+xx:I(xx>0))
> plot(xx,yy)
> points(xx0,predict(fit4,newdata=data.frame(xx=xx0)),pch=16,cex=.3,col='magenta')

> q()
Save workspace image? [y/n/c]: n

Process R:2 finished at Wed Dec 23 12:09:55 2015
```