```
x=1:10  # let x be a vector (1,2,...,10)source
print(x)
y=x+rnorm(10) # let y be x with some N(0,1) noise added
print(y)
plot(x,y)  # the simplest plot
cor(x,y) # the correlation between vector x and vector y
pause() #this just stops execution until you press return
plot(x,y,xlab="this is x",ylab="this is y",main="Title of Plot",col="red")
pause()
lm(y~x)  # simple linear regression
pause()
hold=lm(y~x)  # "hold" is just my name for the output. You can use whatever
pause()
attributes(hold) # this shows how to get more detail from "hold"
pause()
hold[5]
hold$fitted
pause()
plot(x,y) # just to replot the data
lines(x,hold$fitted) # add the regression line to the plot
pause()
hold$residuals
pause()
plot(x,hold$residuals)
pause()
w=x+2*x^2+10*rnorm(10)
plot(x,w)
hold.new=lm(w~x)
lines(x,hold.new$fitted)
pause()
plot(x,hold.new$residuals)
pause()
sum((hold$residuals)^2)
pause()
mean(hold$residuals)
pause()
sd(hold$residuals)
pause()
hist(hold$residuals)
pause()
```