

#Blatt 2, Aufgabe 5

```
wohnungen = read.table("C:/Users/Bjoern/Desktop/Eigene Dateien/Lehre/2015
SS/Oekonometrie/Blatt 1/miete03.txt", header=TRUE, sep=" ")
```

```
y = wohnungen$nm
x = wohnungen$wfl
plot(x,y, xlab="x", ylab="y")
beta1 = cov(x,y)/var(x)
beta0 = mean(y) - beta1*mean(x)
print(paste("beta0 ",beta0, sep=""))
print(paste("beta1 ",beta1, sep=""))
sst = sum((y-mean(y))^2)
yhat = beta0+beta1*x
sse = sum((yhat-mean(y))^2)
print(paste("R^2 ",sse/sst, sep=""))
curve(beta1*x+beta0, add=T, col="red", lwd=3)
print("")
```

```
y = wohnungen$nm
x = log(wohnungen$wfl)
plot(x,y, xlab="log(x)", ylab="y")
beta1 = cov(x,y)/var(x)
beta0 = mean(y) - beta1*mean(x)
print(paste("beta0 ",beta0, sep=""))
print(paste("beta1 ",beta1, sep=""))
sst = sum((y-mean(y))^2)
yhat = beta0+beta1*x
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y = log(wohnungen$nm)
x = wohnungen$wfl
plot(x,y, xlab="x", ylab="log(y)")
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beta0 = mean(y) - beta1*mean(x)
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print(paste("beta1 ",beta1, sep=""))
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```

```
#Ausgabe
```

```
[1] "beta0 89.8469101454759"
[1] "beta1 6.90056049854309"
[1] "R^2 0.500503427427357"
[1] ""
[1] "beta0 -1309.27258122987"
[1] "beta1 449.982032787214"
[1] "R^2 0.464946240836477"
[1] ""
[1] "beta0 5.44452895213294"
[1] "beta1 0.0116272980896852"
[1] "R^2 0.441580636974048"
[1] ""
[1] "beta0 2.93317144455481"
[1] "beta1 0.795051929780261"
[1] "R^2 0.451042508881376"
```



