Assignment 1

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```
dat=read.csv('http://dmcglinn.github.io/quant_methods/data/tgpp.csv', header= T)
```

Question #1: Column names: plot, year, record_id, corner, scale, richness, easting, northing, slope, ph, yrsslb

```
names(dat)
```

```
##  [1] "plot"      "year"      "record_id" "corner"    "scale"
##  [6] "richness"  "easting"   "northing"  "slope"     "ph"
## [11] "yrsslb"
```

Question 2: 4080 rows, 11 columns

```
dim(dat)
```

```
## [1] 4080   11
```

Question 3: object type: vector

```
class(dat[ ,1])
```

```
## [1] "integer"
```

```
sapply(X= dat, FUN= class)
```

```
##      plot      year record_id    corner     scale  richness   easting
## "integer" "integer" "integer" "integer" "numeric" "integer" "integer"
##  northing     slope        ph    yrsslb
## "integer" "integer" "numeric" "numeric"
```

Question 4: (Row 1, Column 3: 187), (Row 5, Column 7: 727000), (Row 8, Column 10: 6.9)

```
dat[1,3]
```

```
## [1] 187
```

```
dat[5,7]
```

```
## [1] 727000
```

```
dat[8,10]
```

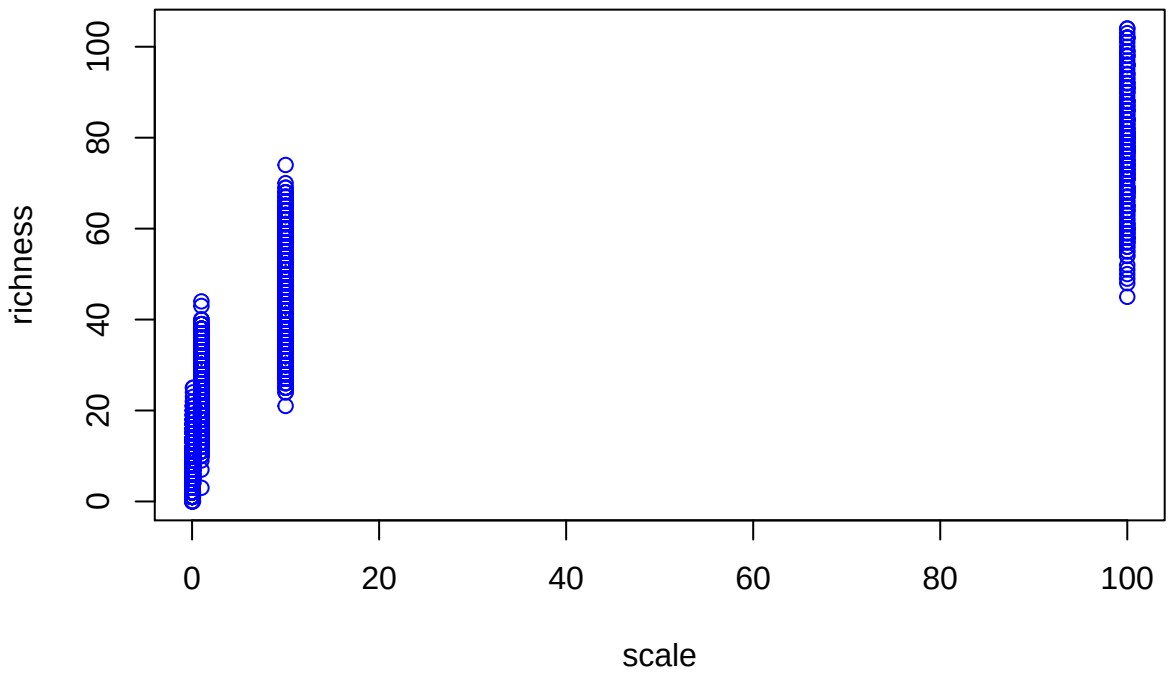
```
## [1] 6.9
```

```
dat[c(1,5,8),c(3,7,10)]
```

```
##   record_id easting  ph
## 1       187  727000 6.9
## 5       191  727000 6.9
## 8       194  727000 6.9
```

Question 5:

```
#png(./scale_vs_richness.png')
 plot(richness ~ scale, data=dat, xlab= 'scale', ylab= 'richness', col= 'blue')
```



```
#dev.off()
```

Question 6: see plot, plot goes into logarithmic scale

```
plot(richness ~ scale, data=dat, xlab= 'scale', ylab= 'richness', col= '300', log= 'xy')
```

```
## Warning in xy.coords(x, y, xlabel, ylabel, log): 4 y values <= 0 omitted
## from logarithmic plot
```