

Working data will be in C:\Program Files\sp2000\users\violetta\\_Data

```
> v.df_scan()
```

```
1: 10
2: 18
3: 4
4: 7
5: 14
6: 12
7: 6
8: 7
9: 6
10: 12
11: 13
12: 8
13: 7
14: 8
15: 11
16: 17
17: 5
18: 11
19: 21
20: 4
21: 19
22: 8
23: 8
24: 7
25: 17
26: 14
27: 10
28: 15
29: 20
30: 16
31: 12
32: 21
33: 4
34: 7
35: 14
36:
```

```
> v.df
```

```
[1] 10 18 4 7 14 12 6 7 6 12 13 8 7 8 11 17 5 11 21 4 19 8
[23] 8 7 17 14 10 15 20 16 12 21 4 7 14
```

```
> hst.v_hist(v.df,plot=F)
```

```
> hst.v
```

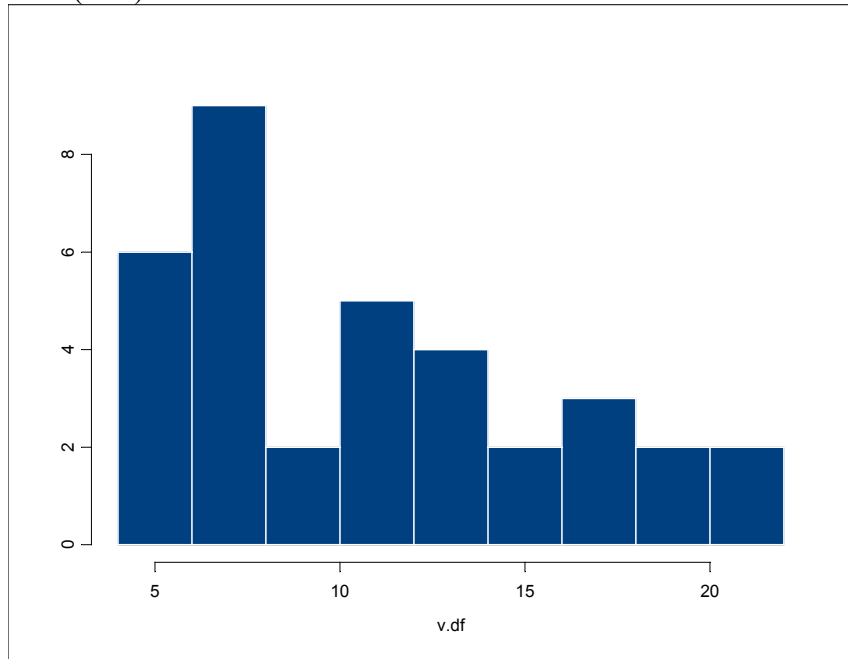
```
$breaks:
```

```
[1] 4 6 8 10 12 14 16 18 20 22
```

```
$counts:
```

```
[1] 6 9 2 5 4 2 3 2 2
```

```
>hist(v.df)
```



```
> br_c(3.5,6.5,9.5,12.5,15.5,18.5,21.5)
```

```
> hst.v_hist(v.df,breaks=br,plot=F)
```

```
> hst.v
```

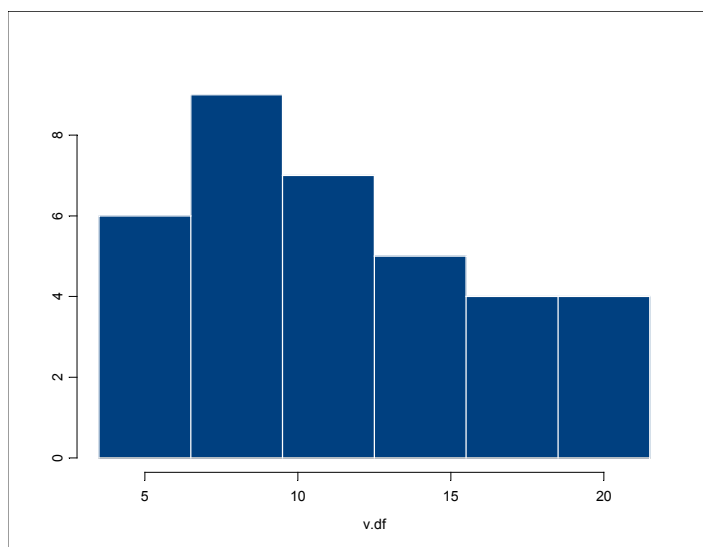
```
$breaks:
```

```
[1] 3.5 6.5 9.5 12.5 15.5 18.5 21.5
```

```
$counts:
```

```
[1] 6 9 7 5 4 4
```

```
> hist(v.df,breaks=br)
```



```
> n_length(br)
```

```
> n
```

```
[1] 7
```

```
> br[-n]
[1] 3.5 6.5 9.5 12.5 15.5 18.5
> br[-1]
[1] 6.5 9.5 12.5 15.5 18.5 21.5
> mid_0.5*(br[-n]+br[-1])
> mid
[1] 5 8 11 14 17 20
```

```
> table(cut(v.df,br,mid))
5 8 11 14 17 20
6 9 7 5 4 4
```

```
> stem(v.df)
```

N = 35 Median = 11  
Quartiles = 7, 15

Decimal point is at the colon

```
4 : 000
5 : 0
6 : 00
7 : 00000
8 : 0000
9 :
10 : 00
11 : 00
12 : 000
13 : 0
14 : 000
15 : 0
16 : 0
17 : 00
18 : 0
19 : 0
20 : 0
21 : 00
```

```
> stem(v.df,,depth=T)
```

N = 35 Median = 11  
Quartiles = 7, 15

Decimal point is at the colon

```
3 3 4 : 000
4 1 5 : 0
6 2 6 : 00
11 5 7 : 00000
15 4 8 : 0000
```

```
15 0 9 :
17 2 10 : 00
    2 11 : 00
16 3 12 : 000
13 1 13 : 0
12 3 14 : 000
 9 1 15 : 0
 8 1 16 : 0
 7 2 17 : 00
 5 1 18 : 0
 4 1 19 : 0
 3 1 20 : 0
 2 2 21 : 00
```

```
> stem(v.df,,-1,depth=T)
```

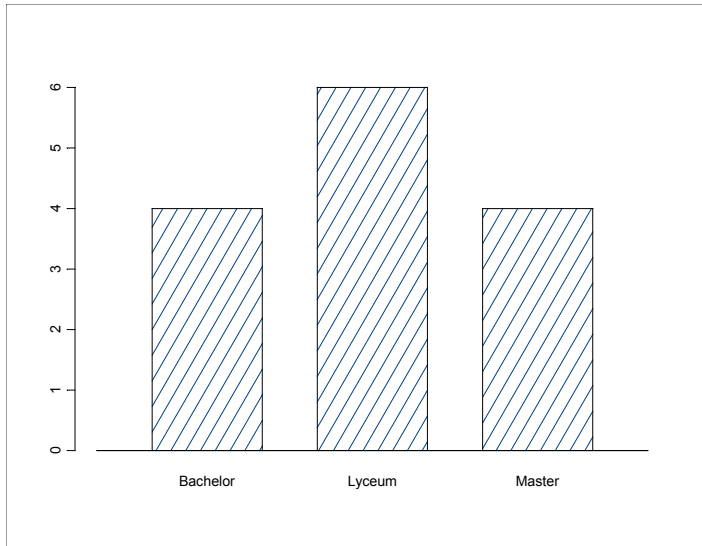
```
N = 35  Median = 11
Quartiles = 7, 15
```

Decimal point is 1 place to the right of the colon

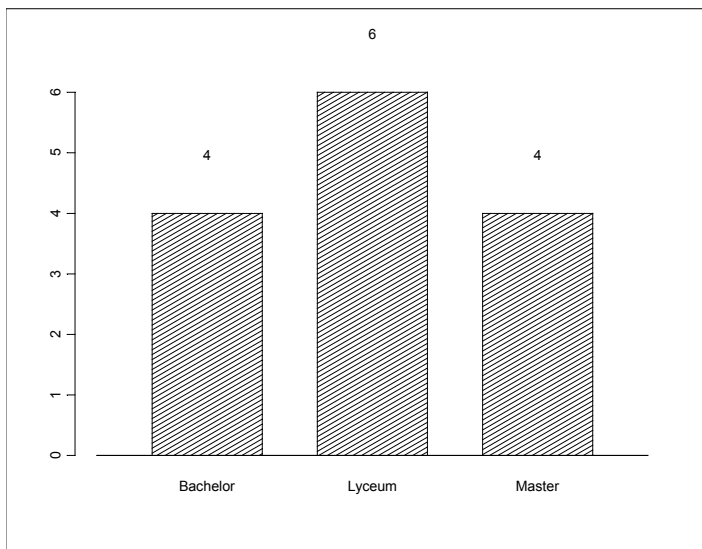
```
 3 3 0 : 444
15 12 0 : 566777778888
   11 1 : 00112223444
  9 6 1 : 567789
  3 3 2 : 011
```

```
> educ_c("l","b","m","l","b","m","m","l","b","l","l","m","b","l")
> teduc_table(educ)
> teduc
 b l m
4 6 4
```

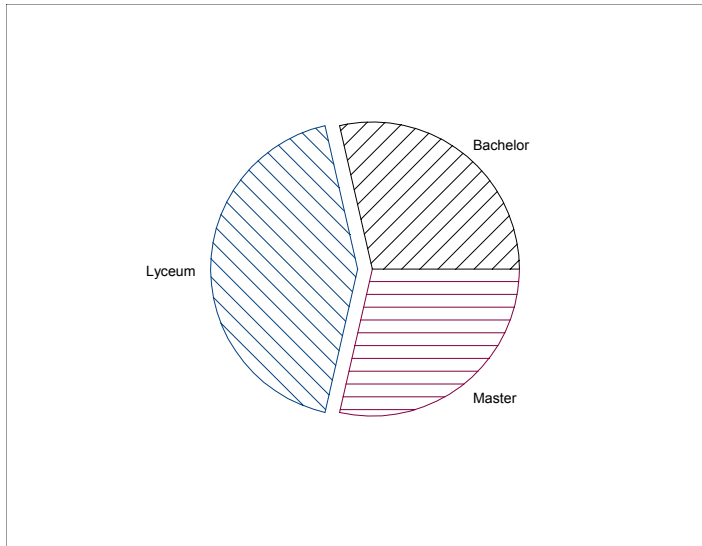
```
> label.names_c("Bachelor","Lyceum", "Master")
> barplot(teduc,space=.5,angle=60,density=5,col=2,names=label.names)
```



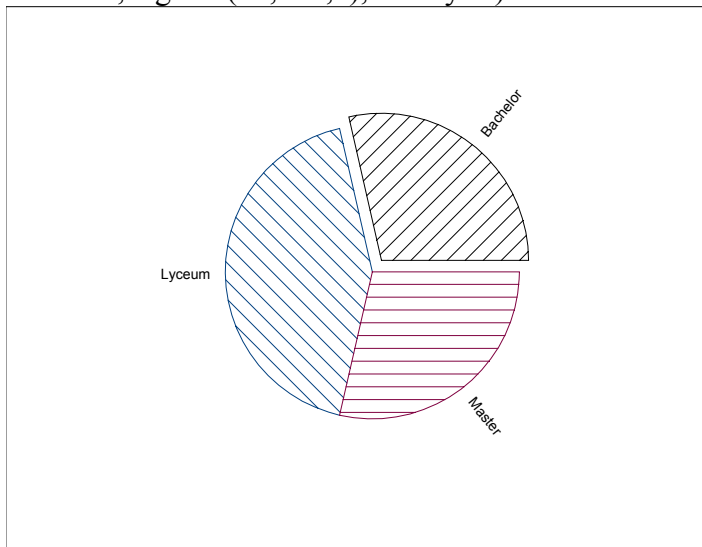
```
> x_barplot(teduc,space=.5,angle=30,density=15,col=1,names=label.names)
> x
[1] 1.0 2.5 4.0
> text(x,teduc+1,teduc)
```



```
> pie(teduc,names=label.names,explode=c(F,T,F), inner=1.1,
rotate=F,angle=c(45,135,0),density=5)
```



> pie(teduc, names=label.names, explode=c(T,F,F), inner=2.1, rotate=T, angle=c(45,135,0), density=5)



> pie(teduc, names=label.names, explode=c(T,F,F), inner=0.5, rotate=F, angle=c(45,135,0), density=15)

