tabla_hair

2024-08-12

hay objetos que ya son tablas

```
hec = HairEyeColor
hec
```

```
## , , Sex = Male
##
##        Eye
## Hair    Brown Blue Hazel Green
##   Black    32   11    10     3
##   Brown    53   50    25    15
##   Red      10   10     7     7
##   Blond     3   30     5     8
##
## , , Sex = Female
##
##        Eye
## Hair    Brown Blue Hazel Green
##   Black    36    9     5     2
##   Brown    66   34    29    14
##   Red      16    7     7     7
##   Blond     4   64     5     8
```

se trabaja coo una table

```
sum(hec)
```

```
## [1] 592
```

es decir, la muestra mide 592

sacando marginales, una dimension

```
prop.table(hec, margin = 3)
```

```
## , , Sex = Male
##
##        Eye
## Hair          Brown        Blue       Hazel       Green
##   Black 0.114695341 0.039426523 0.035842294 0.010752688
##   Brown 0.189964158 0.179211470 0.089605735 0.053763441
##   Red   0.035842294 0.035842294 0.025089606 0.025089606
##   Blond 0.010752688 0.107526882 0.017921147 0.028673835
```

```
##
## , , Sex = Female
##
##        Eye
## Hair          Brown        Blue       Hazel       Green
##   Black 0.115015974 0.028753994 0.015974441 0.006389776
##   Brown 0.210862620 0.108626198 0.092651757 0.044728435
##   Red   0.051118211 0.022364217 0.022364217 0.022364217
##   Blond 0.012779553 0.204472843 0.015974441 0.025559105
```

otra vista

```
f_hec = ftable(prop.table(hec, margin = 3), col.vars = 3 )
f_hec
```

```
##             Sex        Male      Female
## Hair  Eye
## Black Brown     0.114695341 0.115015974
##       Blue      0.039426523 0.028753994
##       Hazel     0.035842294 0.015974441
##       Green     0.010752688 0.006389776
## Brown Brown     0.189964158 0.210862620
##       Blue      0.179211470 0.108626198
##       Hazel     0.089605735 0.092651757
##       Green     0.053763441 0.044728435
## Red   Brown     0.035842294 0.051118211
##       Blue      0.035842294 0.022364217
##       Hazel     0.025089606 0.022364217
##       Green     0.025089606 0.022364217
## Blond Brown     0.010752688 0.012779553
##       Blue      0.107526882 0.204472843
##       Hazel     0.017921147 0.015974441
##       Green     0.028673835 0.025559105
```

```
colSums(f_hec)
```

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

otra vista

cambiando orden de variables

con funcion aperm

```
aperm(hec , perm= c("Hair", "Sex", "Eye"))
```

```
## , , Eye = Brown
##
##        Sex
## Hair    Male Female
```

```
##   Black   32     36
##   Brown   53     66
##   Red     10     16
##   Blond    3      4
##
## , , Eye = Blue
##
##        Sex
## Hair    Male Female
##   Black   11      9
##   Brown   50     34
##   Red     10      7
##   Blond   30     64
##
## , , Eye = Hazel
##
##        Sex
## Hair    Male Female
##   Black   10      5
##   Brown   25     29
##   Red      7      7
##   Blond    5      5
##
## , , Eye = Green
##
##        Sex
## Hair    Male Female
##   Black    3      2
##   Brown   15     14
##   Red      7      7
##   Blond    8      8
```

diferente presentacion de datos

```
#primero instalar
library(kableExtra)

kable(hec)
```

Hair	Eye	Sex	Freq
Black	Brown	Male	32
Brown	Brown	Male	53
Red	Brown	Male	10
Blond	Brown	Male	3
Black	Blue	Male	11
Brown	Blue	Male	50
Red	Blue	Male	10
Blond	Blue	Male	30
Black	Hazel	Male	10
Brown	Hazel	Male	25

Hair	Eye	Sex	Freq
Red	Hazel	Male	7
Blond	Hazel	Male	5
Black	Green	Male	3
Brown	Green	Male	15
Red	Green	Male	7
Blond	Green	Male	8
Black	Brown	Female	36
Brown	Brown	Female	66
Red	Brown	Female	16
Blond	Brown	Female	4
Black	Blue	Female	9
Brown	Blue	Female	34
Red	Blue	Female	7
Blond	Blue	Female	64
Black	Hazel	Female	5
Brown	Hazel	Female	29
Red	Hazel	Female	7
Blond	Hazel	Female	5
Black	Green	Female	2
Brown	Green	Female	14
Red	Green	Female	7
Blond	Green	Female	8

mustra como tabla, da uan representacion global, aunque en este caso no es tan practica

libreria xtable

Esta libreria solo funciona con dimension 2

```
f3_hec = prop.table(hec, margin = 3)[, ,"Male"]

#instalar primero
library(xtable)
xtable(f3_hec)
```

% latex table generated in R 4.3.3 by xtable 1.8-4 package % Mon Aug 12 10:29:14 2024

	Brown	Blue	Hazel	Green
Black	0.11	0.04	0.04	0.01
Brown	0.19	0.18	0.09	0.05
Red	0.04	0.04	0.03	0.03
Blond	0.01	0.11	0.02	0.03

nos da tabla en formato latex, en pdf se ve bien, para ello , hay que agregar a formato de compilacion results =‘asis’