BIS_Tarea10

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```
library(MASS)
new_born = birthwt

head(new_born)
```

```
##    low age lwt race smoke ptl ht ui ftv  bwt
## 85   0  19 182    2     0   0  0  1   0 2523
## 86   0  33 155    3     0   0  0  0   3 2551
## 87   0  20 105    1     1   0  0  0   1 2557
## 88   0  21 108    1     1   0  0  1   2 2594
## 89   0  18 107    1     1   0  0  1   0 2600
## 91   0  21 124    3     0   0  0  0   0 2622
```

```
str(new_born)
```

```
## 'data.frame':    189 obs. of  10 variables:
##  $ low  : int  0 0 0 0 0 0 0 0 0 0 ...
##  $ age  : int  19 33 20 21 18 21 22 17 29 26 ...
##  $ lwt  : int  182 155 105 108 107 124 118 103 123 113 ...
##  $ race : int  2 3 1 1 1 3 1 3 1 1 ...
##  $ smoke: int  0 0 1 1 1 0 0 0 1 1 ...
##  $ ptl  : int  0 0 0 0 0 0 0 0 0 0 ...
##  $ ht   : int  0 0 0 0 0 0 0 0 0 0 ...
##  $ ui   : int  1 0 0 1 1 0 0 0 0 0 ...
##  $ ftv  : int  0 3 1 2 0 0 1 1 1 0 ...
##  $ bwt  : int  2523 2551 2557 2594 2600 2622 2637 2637 2663 2665 ...
```

```
names(new_born) = c("bajopeso", "edad_madre","peso_madre","raza","fuma","prematuro","hipertension","irri
                    "visita_medico","peso_nacim_gr")

new_born$raza = as.factor(new_born$raza)
new_born$fuma = as.factor(new_born$fuma)
new_born$prematuro = as.factor(new_born$prematuro)
new_born$hipertension = as.factor(new_born$hipertension)
new_born$irritacion_uterina = as.factor(new_born$irritacion_uterina)
new_born$visita_medico = as.factor(new_born$visita_medico)
new_born$bajopeso = as.factor(new_born$bajopeso)

str(new_born)
```

```
## 'data.frame':    189 obs. of  10 variables:
##  $ bajopeso          : Factor w/ 2 levels "0","1": 1 1 1 1 1 1 1 1 1 1 ...
##  $ edad_madre        : int  19 33 20 21 18 21 22 17 29 26 ...
##  $ peso_madre        : int  182 155 105 108 107 124 118 103 123 113 ...
```

```
##  $ raza              : Factor w/ 3 levels "1","2","3": 2 3 1 1 1 3 1 3 1 1 ...
##  $ fuma              : Factor w/ 2 levels "0","1": 1 1 2 2 2 1 1 1 2 2 ...
##  $ prematuro         : Factor w/ 4 levels "0","1","2","3": 1 1 1 1 1 1 1 1 1 1 ...
##  $ hipertension      : Factor w/ 2 levels "0","1": 1 1 1 1 1 1 1 1 1 1 ...
##  $ irritacion_uterina: Factor w/ 2 levels "0","1": 2 1 1 2 2 1 1 1 1 1 ...
##  $ visita_medico     : Factor w/ 6 levels "0","1","2","3",..: 1 4 2 3 1 1 2 2 2 1 ...
##  $ peso_nacim_gr     : int  2523 2551 2557 2594 2600 2622 2637 2637 2663 2665 ...
```

```
#Calcula una tabla de frecuencias relativas marginales de los pares (raza de la madre, peso inferior a
new_born$bajopeso[new_born$bajopeso == 0] = "no"
```

```
## Warning in `[<-.factor`(`*tmp*`, new_born$bajopeso == 0, value =
## structure(c(NA, : invalid factor level, NA generated
```

```
new_born$bajopeso[new_born$bajopeso == 1] = "si"
```

```
## Warning in `[<-.factor`(`*tmp*`, new_born$bajopeso == 1, value =
## structure(c(NA_integer_, : invalid factor level, NA generated
```

```
levels(new_born$raza)
```

```
## [1] "1" "2" "3"
```

```
new_born$raza[new_born$raza == 1] = "r_blanca"
```

```
## Warning in `[<-.factor`(`*tmp*`, new_born$raza == 1, value = structure(c(2L, :
## invalid factor level, NA generated
```

```
new_born$raza[new_born$raza == 2] = "r_negra"
```

```
## Warning in `[<-.factor`(`*tmp*`, new_born$raza == 2, value = structure(c(NA, :
## invalid factor level, NA generated
```

```
new_born$raza[new_born$raza == 3] = "r_otra"
```

```
## Warning in `[<-.factor`(`*tmp*`, new_born$raza == 3, value =
## structure(c(NA_integer_, : invalid factor level, NA generated
```

```
raza_bajopeso = table(new_born$raza,new_born$bajopeso)

t(round(prop.table(raza_bajopeso, margin = 1), 2))
```

```
##
##     1 2 3
##   0
##   1
```

```
t(round(prop.table(raza_bajopeso, margin = 2), 2))
```

```
##
##     1 2 3
##   0
##   1
```