Lab2-Answer.R

HP

2021-02-25

```
### Lab 2
#1)
FireName <- c("Waskesiu CFB","Birch Bay","Waskesiu CFB",
              "Wasstrom’s Flats","Millard","Rabbit","Sandy North",
              "Namekus Lake","Waskesiu CFB","Millard","National","Wasstrom’s Guards","South End Meadows")


BurnedArea <- c(40,0.1,NA,834,1483,20228,NA,1.2,56,693,0.5,30,830)
AverageBurned <- sum(BurnedArea, na.rm=TRUE)/11
AverageBurned
```

```
## [1] 2199.618
```

```
#2)
# 2-1
Year <- c("2019","2019","2018","2018","2018","2018","2018","2018","2017","2017","2017"
          ,"2017","2017","2016")


# 2-2
Fires <- cbind(Year, FireName,BurnedArea)
```

```
## Warning in cbind(Year, FireName, BurnedArea): number of rows of result is not a
## multiple of vector length (arg 2)
```

```
Fires
```

```
##       Year   FireName            BurnedArea
##  [1,] "2019" "Waskesiu CFB"      "40"
##  [2,] "2019" "Birch Bay"         "0.1"
##  [3,] "2018" "Waskesiu CFB"      NA
##  [4,] "2018" "Wasstrom’s Flats"  "834"
##  [5,] "2018" "Millard"           "1483"
##  [6,] "2018" "Rabbit"            "20228"
##  [7,] "2018" "Sandy North"       NA
##  [8,] "2018" "Namekus Lake"      "1.2"
##  [9,] "2017" "Waskesiu CFB"      "56"
## [10,] "2017" "Millard"           "693"
## [11,] "2017" "National"          "0.5"
## [12,] "2017" "Wasstrom’s Guards" "30"
## [13,] "2017" "South End Meadows" "830"
## [14,] "2016" "Waskesiu CFB"      "40"
```

```
# 2- 3
# the type of all the variables has been changed to 'string'.

# 2-3
Fires[3,2]
```

```
##       FireName
## "Waskesiu CFB"
```

```
Fires[6,]
```

```
##       Year   FireName BurnedArea
##     "2018"   "Rabbit"    "20228"
```

```
dim(Fires)
```

```
## [1] 14  3
```

```
ncol(Fires)
```

```
## [1] 3
```

```
# 3-1

matrix1 <- matrix(nrow = 3, ncol = 3)

# 3-2
matrix1[1,] <- c(1,2,3)
matrix1[2,] <- c(4,2,1)
matrix1[3,] <- c(2,3,0)
matrix1
```

```
##      [,1] [,2] [,3]
## [1,]    1    2    3
## [2,]    4    2    1
## [3,]    2    3    0
```

```
matrix1t <- t (matrix1)
matrix1t
```

```
##      [,1] [,2] [,3]
## [1,]    1    4    2
## [2,]    2    2    3
## [3,]    3    1    0
```

```
# 3-3
matrixi <- solve(matrix1)
matrixi
```

```
##       [,1]  [,2]  [,3]
## [1,] -0.12  0.36 -0.16
## [2,]  0.08 -0.24  0.44
## [3,]  0.32  0.04 -0.24
```