Exercises

1. If x=c(1,2,3,4,5,2,4,3,5,1,2,3,4,5,1,2)) is a factor with 5 levels and y=c("Red","Green","Blue","Magenta") is a length 4 vector, what happens if you compute y[x]?

Answer 1.

2. Two matrices A and B are given by

$$A = \begin{bmatrix} 1 & 2 & 3 \\ 0 & 1 & 4 \\ 5 & 2 & 4 \end{bmatrix}, \quad B = \begin{bmatrix} 2 & 3 & 0 \\ -1 & 2 & 5 \\ 3 & 9 & 2 \end{bmatrix}$$

Calculate C=AB.

3. With the built-in dataset **state.x77**,
(1) make sure the object is a data frame, if not change it to a data frame.
(2) Find out how many states have an income of less than 4000.
(3) Find out which is the state with the highest income.

 Answer 3.