Hwk 02

Data in R, Fall 2022

# Question 1

## (a) Crop vector

* Create the vector shown below:

[1] “apples” “wheat” “soybeans” “potatoes” “grapes” “cherries” “almonds” “hay”  
[9] “hops”

## (b) Address crop vector

* Replace soybeans with oranges.
* Use indexing to create a subset of the crop vector with only major crops grown in Washington.
* Use a logical vector to create a subset of the crop vector with only major crops grown in Washington.

## (c) Reorder WA crop vector

* Save the Washington major crop vector (subset of original vector).
* Reorder the Washington major crop vector as shown:

[1] “apples” “grapes” “cherries” “potatoes” “hops” “wheat” “hay”

* Use the **order()** function to sort the Washington major crop vector in alphabetical order.

# Question 2

## (a) address matrix with positive indices

* Create the matrix below.

## [,1] [,2] [,3] [,4] [,5]  
## [1,] 1 2 3 4 5  
## [2,] 6 7 8 9 10  
## [3,] 11 12 13 14 15  
## [4,] 16 17 18 19 20

* Extract the following subset:

## [,1] [,2]  
## [1,] 8 9  
## [2,] 13 14  
## [3,] 18 19

* Extract the following subset:

## [1] 6 8 10

## (b) subset matrix with negative indices

* Extract the following subset:

## [,1] [,2] [,3] [,4] [,5]  
## [1,] 1 2 3 4 5  
## [2,] 6 7 8 9 10  
## [3,] 16 17 18 19 20

* Extract the following subset:

## [,1] [,2] [,3]  
## [1,] 1 2 4  
## [2,] 11 12 14  
## [3,] 16 17 19

## (c) replace values in matrix

Create a duplicate matrix for each step of these exercises so the original matrix remains unaltered.

## [,1] [,2] [,3] [,4] [,5]  
## [1,] 1 2 3 4 5  
## [2,] 6 7 8 9 10  
## [3,] 11 12 13 14 15  
## [4,] 16 17 18 19 20

* Replace 9, 14 and 19 with 88.
* Replace 9, 14 and 19 with 23, 24, 25.
* Remove the value of 8.