

## A

Write a program in C that loads (by columns) an array of type int  $A$  with  $K$  columns and  $W$  rows. Create a **result** vector in which you store the indices of those elements that are greater than a given number  $x$ . View the array by rows.

## B

Write a program in C that reads in a row by row array of type int  $A$  with  $K$  columns and  $W$  rows. Create a **result** vector in which you store the indexes of those elements that are three-digit numbers. View the array by columns.

## C

Write a program in C that loads (by columns) an array of type int  $A$  with  $K$  columns and  $W$  rows. Create a **result** vector in which you store elements with even indices (both column number and row number). View the array by rows.

## D

Write a program in C that loads an array of type int  $A$  with  $K$  columns and  $W$  rows by rows. Create a **result** vector in which you store elements with even column indices and odd row indices. View the array by columns.

## E

Write a program in C that loads (by columns) an array of type int  $A$  with  $K$  columns and  $W$  rows. Create a **result** vector to store elements with odd column indices and even row indices. View the array by rows.

## F

Write a program in C that loads an array of int type  $A$  with  $K$  columns and  $W$  rows by rows. Create a **result** vector in which you store elements with odd indices (both column number and row number). View the array by columns.

## G

Write a program in C that loads an array of int type  $A$  with  $K$  columns and  $W$  rows by column. Count the sum of elements with odd indices (both column number and row number) that are divisible by 3. View the array by rows.

## H

Write a program in C that loads an int array of type  $A$  with  $K$  columns and  $K$  rows by rows. Calculate the arithmetic mean of the elements from the main diagonal whose values belong to the interval  $\langle x, y \rangle$ .

## I

Write a program in C that loads an array of int type  $A$  with  $K$  columns and  $K$  rows by rows. Count the arithmetic mean of the elements lying under the main diagonal.

## J

Write a program in C that loads (by columns) an array of type int  $A$  with  $K$  columns and  $K$  rows. Count the arithmetic mean of the elements lying above the main diagonal.

## K

Write a program in C that loads (by columns) an array of int type  $A$  with  $K$  columns and  $K$  rows. Count the positive elements lying above the main diagonal (including the diagonal).

## L

Write a program in C that reads in rows an array of int type  $A$  with  $K$  columns and  $K$  rows. Count the zero elements lying under the main diagonal (including the diagonal).

## M

Write a program in C that loads (by columns) an array of type int  $A$  with  $K$  columns and  $W$  rows and a vector  $B$ . Count the product of the array  $A$  by the vector  $B$ .

## N

Write a program in C that loads an int array **A** with **K** columns and **W** rows and an array B with **W** columns and **K** rows by row. Count the product of the arrays A and B.

## O

1. Data: **n** - number of columns of matrix A  
**m** - number of rows of matrix A

Load the matrix **A(m,n)** by rows. Create a vector **B(m): B(i)** - the sum of the elements of row **i**

## P

2. Data: **n** - number of columns of matrix A  
**m** - number of rows of matrix A  
**k**

Load the matrix **A(m,n)** by columns. Create a vector **B(m): B(i)** - the number of elements of row **i** greater than **k**.

EXAMPLE:

Data to be loaded:

n=5, m=5

array elements: 1, 4, 2, 1, 2, 4, 5, 3,...

k=2

	A					B				
↓	1	4	6	8	3	4				
	4	5	7	2	1	3				
	2	3	5	7	9	4				
	1	3	5	7	8	4				
	2	3	5	2	7	3				