Student Name and Surname:

Problem 1 (5 points)

Define a function called "Grades" that defines the data structure shown in Table 1. The function should account for the number of Erasmus student fails (less than 5), passes (from 5 and less than 7), goods (from 7 and less than 9) and excellents (from 9 to 10). Additionally, the final numerical and alphanumeric grades of Erasmus students should be written in a separate table, taking into account that non-Spanish-speaking Erasmus students are awarded an extra point. The function should display the data for Erasmus students and the table with the final grades.

	Grade	Spanish	Erasmus
Ana	6	no	yes
Pepe	5	yes	no
Nacho	4	no	yes
Bea	9	yes	yes
Gema	2	yes	yes
Alba	3	yes	no

Table 1. Data

The function must display:

Data of Erasmus students:
-Fail: 2
-Pass:1
-Good:0
-Excellent:1

Final Grades:

	Grade	Alphanumeric
Ana	7	Good
Nacho	5	Pass
Bea	9	Excellent
Gema	2	Fail

Problem 2 (5 points)

Create a function called "Even-Odd". The function must check the odd and even numbers of a matrix and calculate their mean. Therefore, the function must check each number in the matrix; if even, the number should be inserted in a vector called “Even”; otherwise, the number should be inserted in the other vector called “Odd”. These vectors must not include repeated numbers, but all numbers must be taken into account for the calculation of the mean. The function must display the matrix, vectors and their mean.
To solve this problem:
A. Perform the exercise with For (1 point)
B. Perform the exercise with While or Repeat, without using For loop. (1 point)

Example:

$$A=\begin{pmatrix}1 & 2 & 1\\ 2 & 4 & 3\\ 3 & 1 & 2\end{pmatrix}$$

Even: (2,4)
Odd: (1,3)
Mean of even numbers: 2.5
Mean of odd numbers: 1.8