Student Name and Surname

Problem 1 (0.5 points)

A.- Create a function called "Hit" that allows the user to enter a number between 0 and 10 using the keypad. A parameter is to be passed to the function specifying the number of times that the number can be entered. It does not have to check if the number is within the range, the function should only check if the respective number is in vector A. If so, it should write that element to vector B; if not, it should be written to vector C. The function should display vectors A, B and C. Vector A has the following elements: A = (2,3,6,1,7).
B.- Monitor the function created in Section A for the specific case of the example below.

Example:

```
>  Hit(3)
[1] "Insert a number between 0 and 10"
1: 2
Read 1 item
[1] "Insert a number between 0 and 10"
1: 9
Read 1 item
[1] "Insert a number between 0 and 10"
1: 4
Read 1 item
A: 2 3 6 1 7
B: 2
C: 9 4
```

Problem 2 (0.5 points)

Write a function that reads two matrices (A and B). Next, the function should substitute the values that are in the same position in both matrices by -1 in matrix B, using:

A.- The while loop; (0.25 points)
B.- The repeat loop. (0.25 points)

Example:

$$A=\begin{pmatrix}3 & 4 & 5\\ 6 & 7 & 8\end{pmatrix} \quad B=\begin{pmatrix}3 & 9 & 1\\ 2 & 4 & 8\end{pmatrix} \qquad \text{Result:} \qquad B=\begin{pmatrix}-1 & 9 & 1\\ 2 & 4 & -1\end{pmatrix}$$

This example shows that -1 replaces the numbers in the position where the same number appears in the two matrices, that is, values 3 and 8 would be changed to -1.

Problem 3 (0.5 points)

Write a function that reads two matrices (A and B). The function should also substitute the values that match in both matrices by -1 in matrix B. It should then display matrix B, plus how many numbers have been substituted in matrix B.

$A=\begin{pmatrix} 3 & 4 & 5 \\ 6 & 7 & 8 \end{pmatrix}$ $B=\begin{pmatrix} 1 & 1 & 1 \\ 2 & 2 & 2 \\ 3 & 3 & 3 \end{pmatrix}$ Result: $B=\begin{pmatrix} 1 & 1 & 1 \\ 2 & 2 & 2 \\ -1 & -1 & -1 \end{pmatrix}$ Substituted numbers: 3