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The Virtual Learning Environment for Computer Programming

## DNI (again)

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Now that we know to calculate the letter of the DNI, we are going to analyze the back side of the DNI. There, a series of numbers and letters appear, as in the following instance:

```
IDESP12345678Z3<<<<<<<<<<<<<<<< \\
7410150M0903226ESP<<<<<<<<<<<<4 \\
DOE<<JOHN<<<<<<<<<<<<<<<<<<<<<<< \\
```

It exists an urban legend that says that the last number of the second line corresponds to the number of people that has the same name and surname that the owner of the DNI. However, as it is explained in the web http://jpf.sdf1.org/dni/, it is not true.
This area of the DNI is composed by OCR characters, that are prepared to be read by machines. In particular, that number only is a control number to verify that it has been correctly read. We can define the following fields in this data area:

```
1.[ID] 2.[ESP] 3.[12345678Z] 4.[3] 5.[<<<<<<<<<<<<<<<<<<] \\
6.[741015] 7.[0] 8.[M] 9.[090322] 10.[6] 11.[ESP] 12.[<<<<<<<<<<<<<] 13.[4] \\
14. [DOE<<UOHN <<<<<<<<<<<<<<<<<<<<<<<<<]
```

1. Type document [ID]
2. Nation [ESP]
3. Number of DNI [12345678Z]
4. Control number of field 3
5. Filler
6. Date of birth (AAMMDD) [741015]
7. Control number of field 6
8. Sex (M/F)
9. Date of expiration[090322]
10. Control number of field 9
11. Nacionality [ESP]
12. Filler
13. Control number of field $3,4,6,7,9$ and 10 concatenated
14. Name

To obtain the control number of a field, the field has to be separated by characters. If we have a letter, we must change it into a number according to the following table:

Table 1: Character to number conversion.


Once that all the characters have been change into numbers, we have a sequence of numbers. Then, we add all the numbers up applying a weight 7-3-1. It means that the first digit is multiplied by 7 , the second one by 3 , the third one by 1 , the fourth one by 7 , etc. The last
number of the obtained result is the control digit. We can see this procress in the following instance. We have the field 12345678 Z . We separe the characters (12345678Z) and we change letter $Z$ into a number (it corresponds to 25 ). Then, we do the sum of the numbers with weight 7-3-1:

$$
1 \cdot 7+2 \cdot 3+3 \cdot 1+4 \cdot 7+5 \cdot 3+6 \cdot 1+7 \cdot 7+8 \cdot 3+9 \cdot 1+25 \cdot 7=163
$$

So that the control number would be 3 .
The target of this problem is to write a program that, given the data of a DNI, computes the control number that correspond to the field number 14. Warning: concatenating 2 fields means to put the second one after the first one.

## Input

The input consists of a sequence of the data fields of different DNIs necessary to compute the control numbers (3, 6 and 9). The fields are given in a line, separated by a space and in the order previously explained. The field 3 is a eight-figure number with a character (NIF). The field 6 is a six-figure number and the field 9 is a six-figure number. The characters will always be uppercase letters between ' $A^{\prime}$ and ' $Z$ ' (there is not lowercase letters nor accents).

## Output

For each given number, your program must print a line with the control number that corresponds to the field number 13.

## Sample input

```
12345678Z 741015 090322
47776371N 810412 120803
39430551H 830105 120117
07213148A 760407 080723
12345678Z 123456 123456
```


## Sample output <br> 4 0 4 8 0

## Problem information

Author : Miquel Moretó
Translator : Carlos Molina
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