HIRSCH Maschinenbau

VAT Number

Description

With the new tax system in Greece, people have to collect receipts and then sum them up. Here, you will help to identify valid receipts from their VAT numbers and then make the sum. A Greek VAT number is an 8-digit or 9-digit number. In order to be sure that VAT number ($A_8A_7A_6A_5A_4A_3A_2A_1$ or $A_9A_8A_7A_6A_5A_4A_3A_2A_1$) is numerically valid, we do all the following steps.

1. If the length of the VAT number is 8, then assume that it has a zero digit in front of it, and then continue with a 9 digit string
2. $S = A_1 * 0 + A_2 *2 + A_3 * 4 + A_4 * 8 + A_5 * 16 + A_6 * 32 + A_7 * 64 + A_8 * 128 + A_9 * 256$.
3. $Y = S \bmod 11$
4. If $Y == 10$ AND $A_1 == 0$, VAT number is numerically valid
5. If $Y == A_1$, VAT number is numerically valid
6. In any other case, VAT number is not valid

Task

You will be given a list of receipts (VAT number, amount in euro cents) and you are asked to create a program that will identify valid receipts from their VAT number and then return the sum of these receipts.

Input

The input file contains a list of receipts, containing VAT number and amount in euro cents in each line. A single empty line signifies the end of the list.

Output

The output file will contain the sum of all valid receipts, in euro cents, and a new line.

Sample Input

094185641 3929
092766360 900
030026340 850
092766360 5500
998198381 590
040933250 800
999517462 250
058302582 1410
052866929 160
998686837 570
998475585 3676

Sample Output

18635

Sample Input with invalid VAT

94185641 3929
92766360 900
30026340 850
92766360 5500
998198381 590

40933250 800
999517463 250
58302582 1410
52866929 160
998686837 570
998475585 3676

Sample Output
18385