Illegible account numbers

Adam has been asked to pay some bills. He has received a list of bank account numbers, each associated with an amount of money to be paid.

Unfortunately, some of the digits on the list are completely illegible. Adam got upset as he thought he would not be able to complete the task. However, he discovered that missing digits might be recovered. Write a program solving Adam's task.

Input

Positive 0 < X <= 1000 - the number of bills to be paid. In the following X lines, payment data in the format:

CCDD DDDD DDDD DDDD DDDD DDDD DDDD; [amount]

where CC is the country code, each D denotes a digit or an asterisk: *, if the digit is illegible. There is at most one asterisk in each line. A [amount] denotes the amount of money to be paid.

All account numbers are compatible with the IBAN standard, and consist of exactly 28 characters.

Output

The list of bills with missing illegible digits filled in, in the same format as provided at input. The total bill amount should be written in the final line.

Example

Input:
3
PL56 1060 0076 0000 4011 0000 1906; 134.56
PL24 1*20 1811 0000 0602 0100 9034; 843.85
PL77 1160 2202 0000 0000 3436 4*84; 435.20

Output:
PL56 1060 0076 0000 4011 0000 1906; 134.56
PL24 1020 1811 0000 0602 0100 9034; 843.85
PL77 1160 2202 0000 0000 3436 4384; 435.20
1413.61

Scoring

For solving this problem you will score **10 points**.

Bonus challenge

The registered contestant who solves the problem in the least number of bytes of source code will receive a small gift from us, as described in the "prizes" tab.

The lengths of submitted source codes will be on public display in the system states for the first 4

weeks, i.e. until noon on Saturday, October 18; in the last week of the series they will only be visible to the submitting contestant.