Problem B

(Program filename: B.CPP or B.PAS)

Mixed Numbers

A **mixed fraction** is defined recursively as follows:

- A real value is a **simple** mixed fraction. For simplicity, we only consider one digit positive integer numbers greater than zero (digits 1 ... 9).
- If a is a real value (which is again assumed as an integer between 1 and 9), and b and c are two mixed fractions, $a\frac{b}{c}$ is a mixed fraction which is equal to $a+\frac{b}{c}$.
- Sum of a number of mixed fractions is also a mixed fraction.

One can draw a view of a mixed fraction using ASCII characters as described below:

- A simple mixed fraction can be drawn using one digit character.
- The mixed fraction $a\frac{b}{c}$ will be drawn using a digit showing a, and a horizontal line that starts immediately after the letter representing a (in the same row) using '-' characters. b and c are drawn recursively above and below the horizontal line respectively, such that their figures do not exceed the line from left nor right.
- Sum of mixed fractions is represented by drawing the mixed fractions and inserting a '+' character between each consequence pair such that the '+' character and the first character of the next and the previous mixed fractions make a horizontal line.

We want you to write a program to calculate the value of a mixed fraction from its figure.

Input (filename: B.IN)

Some 90 degree clockwise rotated figures of a number of mixed fractions are given in the input file. In the first line of each rotated mixed fraction $n < 300$ and $m < 15000$, the length and the width of the figure, are written. In the next m lines the figure is described ('-' is replaced with '|'). Note that each line will consists of exactly n characters so any number of spaces may be used in the shape, but anyway, the shape of the figure satisfies description explained above. The file ends with a line containing two zeroes.

Output (filename: B.OUT)

For each test case write its value in a separate line. Your answer must be rounded to two digits after decimal point and the output must contain exactly two digits after the decimal point.

Sample Input

```
8 6
   1
 2 |  2
4|2| 4|3
   |
   +
   1
0 0
```

Sample Output

```
3.10
```