24 Gamma Ray and his collection of art
10 points

Introduction

Gamma Ray is an art collector that is worried about the security at his home, where he keeps his priceless collection of pictures. That is why he has designed a mirror-based laser circuitry to detect if somebody makes it into his house.

Until now, his method was too hard, since he used to generate the circuits by hand and test them by hand too, moving the mirrors one by one.

In the last conference he attended, he met a programmer who let him know what a computer could do for him.

Gamma has hired you to make his work easier, because he is not really sure how to do it.

Note that Gamma's house is 100 tiles height per 200 tiles width and, therefore, that is the maximum area he can cover.

Input

The input of the program will be a sequence like this:

```
'>4/3\6/3\1' 2 4 8 5
```

Where in the string:

> represents the position where he puts the laser-emitter and the laser-detector of the circuit. The laser-light always goes to the right.

/ represents a right-sided mirror. The laser is always refracted 90 degrees at the point where it reaches the mirror.

\ represents a left-sided mirror.

<number> represents the number of straight segments the light has to travel

And the numbers mean:

1st	position X to begin
2nd	position Y to begin
3rd	maximum X capacity of the circuit
4th	maximum Y capacity of the circuit

Output

The output of the program must represent in two dimensions the tour of the light between all mirrors system. And the only way laser can reach the detector is in the same direction it has begun. For the input above the output has to be:

```
/------\
|      |
|      |
|      |
\->----/
```

For the output represent the straight segments with symbols:
    '-' if horizontal and
    '|' if vertical