

Character Patterns (Act 6)

Given specified dimensions, print a grid-like pattern. Use the | (pipe) sign to print vertical elements, the - (minus) to print horizontal ones and + (plus) for crossings. The rest of the space fill with . (dots) characters.

Input

You are given t - the number of test cases and for each of the test cases four positive integers: l - the number of horizontal elements, c - the number of vertical elements in the grid; h and w - the high and the width of the single rectangle respectively.

Output

For each of the test cases output the requested pattern (please have a look at the example). Use one line break in between successive patterns.

Example

Input:

```
3
3 1 2 1
4 4 1 2
2 5 3 2
```

Output:

```
.|.
|.
-+-
|.
|.
-+-
|.
|.
-+-
|.
|.
..|.|.|.|.
-+-+-+-+
..|.|.|.|.
-+-+-+-+
..|.|.|.|.
-+-+-+-+
..|.|.|.|.
-+-+-+-+
..|.|.|.|.
..|.|.|.|.|.
..|.|.|.|.|.
..|.|.|.|.|.
-+-+-+-+
..|.|.|.|.|.

```

..|.|.|.|.|.|.|.|..

..|.|.|.|.|.|.|.|..

--+--+--+--+--+--

..|.|.|.|.|.|.|.|..

..|.|.|.|.|.|.|.|..

..|.|.|.|.|.|.|.|..