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 with 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:
```
.|.
.|.
-+-
.|.
.|.
-+-
.|.
.|.
-+-
.|.
.|.

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

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

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