

Character Patterns (Act 4)

Using two characters: . (dot) and * (asterisk) print a grid-like pattern.

Input

You are given t - the number of test cases and for each of the test cases four positive integers: l - the number of lines, c - the number of columns in the grid; h and w - the high and the with of the single rectangle.

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 2 2

Output:

```

***
*  *
*
*  *
*
***
*  *
*
*  *
*
***
*  *
*
*  *
*
***

```

```

*****
*   *   *   *   *
. . . . .
*****
*   *   *   *   *
. . . . .
*****
*   *   *   *   *
. . . . .
*****
*   *   *   *   *
. . . . .
*****
*   *   *   *   *
. . . . .
*****

```

```

*****
*       *       *       *
. . . . .
*   *   *   *   *   *
. . . . .
*****
*   *   *   *   *   *
. . . . .
*   *   *   *   *   *
. . . . .
*****

```