

### 4403 - ASCII Diamondi

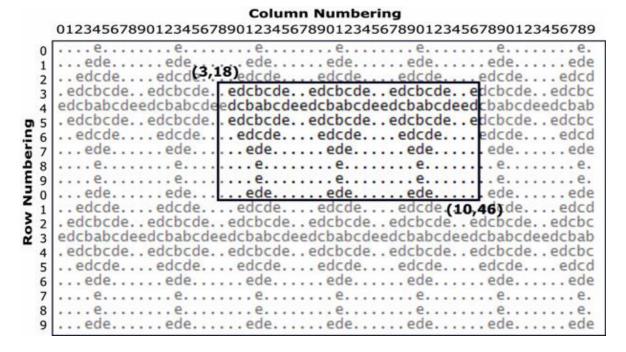
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ASCII diamonds can be drawn with integer side lengths. Each layer of this diamond is drawn with a single ASCII alphabet, starting with **a** and ending with **z** (starting from the center) and continues in cyclic order.

a	.b. bab .b.	.cbc.	d dcd .dcbcd. dcbabcd .dcbcd. dcd	edeedcdeedcbcde. edcbabcde .edcbcdeedcdeedcde.	fedfedcdeffedcbcdef. fedcbabcdeffedcbcdeffedcdeffedcf	gfggfefggfedefggfedcdefggfedcbcdefg. gfedcbabcdefggfedcbcdefggfedcdefggfedefggfedefggfefg	hhhgfdhhgfefghhgfedcfghhgfedcdefghhgfedcbabcdefgh.hgfedcbabcdefghhgfedcbabcdefghhgfedcbabcdefghhgfedcdefghhgfedcfghhgfedchabcdefghhgfedchabcdefghhgfedchabcdefghhgfedchabcdef
N=1	N=2	N=3	N=4	N=5	N=6	N=7	N=8

Figure 1: ASCII diamond for different side lengths.

Any one of these **ASCII** diamonds can be used to draw an infinite plane by using this as a tile. For example **ASCII** diamond of length **5** can be used to draw such an infinite grid. Only first **20** row and **60** columns are shown below:



Here rows and columns are numbered starting from zero. By specifying the topmost row  $(\mathbf{row_1})$ , leftmost column  $(\mathbf{col_1})$ , bottommost row  $(\mathbf{row_2})$  and rightmost column  $(\mathbf{col_2})$  we can specify a portion of such an infinite grid (also shown in figure above).

Given the side length of the tile to be used, the topmost row  $(\mathbf{row_1})$ , leftmost column  $(\mathbf{col_1})$ , bottommost row  $(\mathbf{row_2})$  and rightmost column  $(\mathbf{col_2})$  you have to print the pattern within these four boundaries (inclusive).

#### Input

Input contains at most 125 sets of inputs. But not all cases are extreme.

Each set of input contains five integers: N (0<N£20000),  $row_1$ ,  $col_1$ ,  $row_2$ ,  $col_2$  (0£  $row_1$  £  $row_2$  £ 20000, 0 £  $col_1$  £  $col_2$  £ 20000, 0£ ( $row_2$ -  $row_1$ +1)\* ( $col_2$ -  $col_1$ +1) £ 40000). Here N denotes that the side length of the tiles used to draw the plane should be N. The meaning of  $row_1$ ,  $col_1$ ,  $row_2$ ,  $col_2$  are given in the problem statement. The first sample input corresponds to the figure above.

Input is terminated by a line where the first integer is zero.

#### **Output**

For each line of input produce ( $row_2$ -  $row_1$ +2) lines of output. First line contains serial of output. Each of the next lines contain ( $col_2$ -  $col_1$ +1) characters. These lines describe the patterns within the specified rows and columns. Look at the output for sample input for details. The output file size is less than 1 MB.

# Sample Input Input

## Output for Sample

5 3 18 10 46 Case 1:

100 50 50 69 69 edcbcde..edcbcde..edcbcde..e

0 2 3 4 5 edcbabcdeedcbabcdeedcbabcdeed

.edcbcde..edcbcde..e

..edcde....edcde....

edeede
ee
ee
edeede
Case 2:
utsrqponmlkjihgfedcb
tsrqponmlkjihgfedcba
srqponmlkjihgfedcbaz
rqponmlkjihgfedcbazy
qponmlkjihgfedcbazyx
ponmlkjihgfedcbazyxw
onmlkjihgfedcbazyxwv
nmlkjihgfedcbazyxwvu
mlkjihgfedcbazyxwvut
lkjihgfedcbazyxwvuts
kjihgfedcbazyxwvutsr
jihgfedcbazyxwvutsrq
ihgfedcbazyxwvutsrqp
hgfedcbazyxwvutsrqpo
gfedcbazyxwvutsrqpon
fedcbazyxwvutsrqponm
edcbazyxwvutsrqponml
dcbazyxwvutsrqponmlk
cbazyxwvutsrqponmlkj
bazyxwvutsrqponmlkji

Problem setter: Shahriar Manzoor, Special Thanks: Sohel Hafiz, Md. Arifuzzaman Arif

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**Problemsetter:** Shahriar Manzoor

**Special Thanks:** Md. Arifuzzaman Arif, Sohel Hafiz