

Program Name: building.cpp

Input File: building.dat

The planners for any new construction need a program that can help them envision what some potential new plans for buildings will look like in relationship to the buildings around them. You are going to write just such a program for this problem. The ground area under consideration is a 6x6-block area each with a building on it. Each building is uniquely numbered from the set {A-Z, 0-9}. The block area is arranged and numbered is shown below.

North							
A	B	C	D	E	F		
G	H	I	J	K	L		
M	N	O	P	Q	R		
West	S	T	U	V	W	X	East
Y	Z	0	1	2	3		
4	5	6	7	8	9		
South							

You can see that if you view the block from the North that the building at block D will block some or all of the building at block J. In fact, you will only see that top part of J that towers above the top of D. The same can be said to be true for the building P when considering both building D and J. In the program, you will be given a height for each of the buildings in the block area and then print the view from one of the four directions. Although a person would actually see a perspective from a single point, we will assume that the view is from a plane such that you would not see building K if you were standing at a point such that you could really see it between L and R.

Your program is going to show the view for a block strategy that defines the height of each building and then uses the block ID itself to show the view from one of the four directions. If the building at position D were 3 units high and the building at position J were 7 units high, the Northern view on your program would show a column of three D's at the bottom with a column of four J's in the middle with a column of 3 space characters at the top. The sample below represents a block strategy and the view of the block strategy from the South in the same format that your program should print. (Note that all views will show the complete 10 units of height even if no building is that tall.)

5	3	10	4	6	8
2	8	3	8	4	1
4	7	3	9	9	2
1	5	5	2	3	6
3	4	4	5	2	4
2	4	4	1	7	3

Figure 1: Sample Building Strategy

C
CPQ
HCPQF
NCP8F
NCP8X
ATU18X
M56183
Y56189
456189
456789

Figure 2: Southern View of Sample Building Strategy

Input

Input to your program consists of one building strategy. The strategy consists of 6 lines of input and each line of input contains 6 integers ($1 \leq H \leq 10$) separated by integers. Each integer represents the height of the building at the block location corresponding with the picture above such that the first integer in the strategy represents the building at block A and the last represents the building at block 9. Your program should read the block strategy and print the view from the South for the strategy.

Output

Output for your program should be exactly 10 lines of output. The lines represent the view from the south of the block set described in the input file. For each position in the 10 rows by 6 columns of output, you will print the appropriate character if a building is seen at that position. If no building occupies that position, you should print a space for that position on the southern view.

Example: Input File

```
5 3 6 4 6 8
3 8 10 7 4 1
6 7 5 10 9 2
6 5 3 2 3 6
3 6 3 5 2 4
2 3 2 1 7 7
```

Output to screen

```
IP
IPQ
HIPQF
NIP89
SZIP89
SZO189
SZO189
Y50189
456189
456789
```