

# Problem F Magic Mirror

Time Limit: 4 seconds Memory Limit: 512 Megabytes

#### **Problem description**

Users are required to enter a matrix 8x8 of characters as figure 1 (before mirror). The system displays these characters in new position after applied mirroring transformation by vertical axis as figure 2 (after mirror).

Below is an example of how the program will run:

Test-case1 : before mirror												afte	r mi	rror						
	0	1	2	3	4	5	6	7				0	1	2	3	4	5	6	7	
0			*								0						*			
1			*								1						*			
2			*								2						*			
3			*								3						*			
4			*								4						*			
5			*								5						*			
6			*								6						*			
7			*	*	*	*					7			*	*	*	*			
	Fig 1. Original data (before mirror)								Fig 2. After mirrored											
Sample data input 1									Sample data output 1											
<space><space>*<space><space><space></space></space></space></space></space>									<pre><space><space><space><space><space></space></space></space></space></space></pre>											
<pre><space><space><space><space><space><space><space></space></space></space></space></space></space></space></pre>									<pre><space><space><space><space>*<space><space> <space><space><space><space><space></space></space></space></space></space></space></space></space></space></space></space></pre>											
<pre><space><space>*SPACE&gt;<space><space><space></space></space></space></space></space></pre> <pre><space>*SPACE&gt;*SPACE&gt;<space><space></space></space></space></pre>									<pre> <pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre>											
<pre><space>*SPACE&gt;*SPA</space></pre>									<pre><space>SFACE&gt;SFACE&gt;SFACE&gt;SFACE&gt;<space><space><space><space><space><space><space></space></space></space></space></space></space></space></space></pre>											
<pre><space><space><space><space><space><space><space><space><space><space></space></space></space></space></space></space></space></space></space></space></pre>										<pre><space><space><space><space>*<space><space></space></space></space></space></space></space></pre>										
<pre><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><space><spa< td=""><td colspan="10"><pre><space><space><space><space>*<space><space></space></space></space></space></space></space></pre></td></spa<></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></space></pre>											<pre><space><space><space><space>*<space><space></space></space></space></space></space></space></pre>									
<pre><space>&lt;****<space>&lt;</space></space></pre>											<space><space>****<space></space></space></space>									

Note: <SPACE> is the white space character - " " - in ASCII table

#### Input

A matrix of 8x8 characters



### Hackathon Contest 2021 – Offline Programming Part FPT Education 2<sup>nd</sup> Round on March 13<sup>th</sup>, 2021



### Output

The mirrored matrix result.

## Example:

Test-case2 : before mirror											ofte	vr mai	rror						
	resi	cas	sez :	ber	ore i	mirre	or				arte	er mi	rror						
	0	1	2	3	4	5	6	7			0	1	2	3	4	5	6	7	
0		*					*			0		*					*		
1		*	*				*			1		*				*	*		
2		*		*			*			2		*			*		*		
3		*		*			*			3		*			*		*		
4		*			*		*			4		*		*			*		
5		*			*		*			5		*		*			*		
6		*				*	*			6		*	*				*		
7		*					*			7		*					*		
												Ī							
Fig 3. Original data (before mirror)									Fig 4. After mirrored										
Sample data input 2									Sample data output 2										
<space>*<space><space> *<space></space></space></space></space>									<pre><space>*<space><space>*<space></space></space></space></space></pre>										
<space>**<space><space></space></space></space>									<space>*<space><space></space></space></space>										
<space>*<space>*SPACE&gt;*SPACE&gt;</space></space>								<space>*<space>*<space></space></space></space>											
<space>*<space>*SPACE&gt;</space></space>									<space>*<space>*SPACE&gt;</space></space>										
<space>*<space>*<space></space></space></space>									<space>*<space>*<space></space></space></space>										
<space>*<space>*<space></space></space></space>										<space>*</space>	<space< td=""><td>&gt;*<sp< td=""><td>ACE&gt;&lt;</td><td>SPACE</td><td>&gt;*<spa< td=""><td>ACE&gt;</td><td></td><td></td></spa<></td></sp<></td></space<>	>* <sp< td=""><td>ACE&gt;&lt;</td><td>SPACE</td><td>&gt;*<spa< td=""><td>ACE&gt;</td><td></td><td></td></spa<></td></sp<>	ACE><	SPACE	>* <spa< td=""><td>ACE&gt;</td><td></td><td></td></spa<>	ACE>			
<spac< td=""><td>E&gt;*<s< td=""><td>PACE&gt;</td><td><spac< td=""><td>CE&gt;<si< td=""><td>PACE&gt;</td><td>**<sp <="" td=""><td>ACE&gt;</td><td></td><td></td><td><space>*</space></td><td>*<spac< td=""><td>E&gt;<sp.< td=""><td>ACE&gt;&lt;</td><td>SPACE</td><td>&gt;*<spa< td=""><td>ACE&gt;</td><td></td><td></td></spa<></td></sp.<></td></spac<></td></sp></td></si<></td></spac<></td></s<></td></spac<>	E>* <s< td=""><td>PACE&gt;</td><td><spac< td=""><td>CE&gt;<si< td=""><td>PACE&gt;</td><td>**<sp <="" td=""><td>ACE&gt;</td><td></td><td></td><td><space>*</space></td><td>*<spac< td=""><td>E&gt;<sp.< td=""><td>ACE&gt;&lt;</td><td>SPACE</td><td>&gt;*<spa< td=""><td>ACE&gt;</td><td></td><td></td></spa<></td></sp.<></td></spac<></td></sp></td></si<></td></spac<></td></s<>	PACE>	<spac< td=""><td>CE&gt;<si< td=""><td>PACE&gt;</td><td>**<sp <="" td=""><td>ACE&gt;</td><td></td><td></td><td><space>*</space></td><td>*<spac< td=""><td>E&gt;<sp.< td=""><td>ACE&gt;&lt;</td><td>SPACE</td><td>&gt;*<spa< td=""><td>ACE&gt;</td><td></td><td></td></spa<></td></sp.<></td></spac<></td></sp></td></si<></td></spac<>	CE> <si< td=""><td>PACE&gt;</td><td>**<sp <="" td=""><td>ACE&gt;</td><td></td><td></td><td><space>*</space></td><td>*<spac< td=""><td>E&gt;<sp.< td=""><td>ACE&gt;&lt;</td><td>SPACE</td><td>&gt;*<spa< td=""><td>ACE&gt;</td><td></td><td></td></spa<></td></sp.<></td></spac<></td></sp></td></si<>	PACE>	** <sp <="" td=""><td>ACE&gt;</td><td></td><td></td><td><space>*</space></td><td>*<spac< td=""><td>E&gt;<sp.< td=""><td>ACE&gt;&lt;</td><td>SPACE</td><td>&gt;*<spa< td=""><td>ACE&gt;</td><td></td><td></td></spa<></td></sp.<></td></spac<></td></sp>	ACE>			<space>*</space>	* <spac< td=""><td>E&gt;<sp.< td=""><td>ACE&gt;&lt;</td><td>SPACE</td><td>&gt;*<spa< td=""><td>ACE&gt;</td><td></td><td></td></spa<></td></sp.<></td></spac<>	E> <sp.< td=""><td>ACE&gt;&lt;</td><td>SPACE</td><td>&gt;*<spa< td=""><td>ACE&gt;</td><td></td><td></td></spa<></td></sp.<>	ACE><	SPACE	>* <spa< td=""><td>ACE&gt;</td><td></td><td></td></spa<>	ACE>			
<space>*<space><space></space></space></space>										<space>*<space><space><space></space></space></space></space>									