

Straight Line Spiral Pattern (Act 4)

For this problem we consider spirals drawn as ASCII Art pictures using only the * and . character in an s by s grid. We call s the size of the spiral. Here are example of such spirals for some values of s.

The spiral of size s=3

```
* *
.
* *
.
***
```

The spiral of size s=4

```
* **
.
* *
..
* *
..
****
```

The spiral of size s=5

```
* ***
.
* * *
. .
* * *
. .
* . *
. . .
*****
```

The spiral of size s=6

```
* ****
.
* * *
. . .
* * *
. . .
* * *
. . .
* . *
. . . .
*****
```

The spiral of size s=7

```
* *****
.
* * *
. . . .
* * * *
. . . .
* * * *
. . . .
* * * *
. . . .
* . *
. . . . .
*****
```

The spiral of size s=8

```
* * * * *
.
* * * *
. . . . .
```

```
* * * * *  
  .  .  .  
* * * * *  
  .  .  .  
* * * * *  
  .  .  .  
* * * * *  
  .  .  .  
* * * * *  
  .  .  .  
* * * * *  
  .  .  .  
* * * * *  
  .  .  .  
* * * * *  
  .  .  .  
* * * * *  
  .  .  .  
* * * * *  
  .  .  .  
* * * * *  
  .  .  .  
* * * * *  
  .  .  .  
* * * * *  
  .  .  .  
* * * * *  
  .  .  .  
* * * * *  
  .  .  .  
* * * * *
```

The spiral of size $s=9$

```
* * * * * * * * *  
  .  
* * * * * *  
  .  .  .  .  .  .  
* * * * * * * * *  
  .  .  .  .  .  .  
* * * * * *  
  .  .  .  .  .  
* * * * * *  
  .  .  .  .  .  
* * * * * * * * *  
  .  .  .  .  .  .  
* * * * * *  
  .  .  .  .  .  
* * * * * * * * *  
  .  .  .  .  .  .  
* * * * * * * * *  
  .  .  .  .  .  .  
* * * * * * * * *  
  .  .  .  .  .  .  
* * * * * * * * *  
  .  .  .  .  .  .  
* * * * * * * * *  
  .  .  .  .  .  .  
* * * * * * * * *  
  .  .  .  .  .  .  
* * * * * * * * *  
  .  .  .  .  .  .  
* * * * * * * * *
```

Input

The first line contains an integer $T=1000$, which is the number of test cases. Then the next T lines contain 3 integers separated by a single space, namely $3 \leq s \leq 10000$, $1 \leq i \leq s$ and $1 \leq j \leq s$.

Output

For each test case output in a single line the character of the spiral of size s at row i and at column j .

Example

Input:

```
3  
3 1 1  
4 3 2  
5 2 3
```

Output:

```
*  
.  
*
```