

Pattern Printing

Decode the logic and print the Pattern that corresponds to given input.

If $N = 3$, then pattern will be :

```
10203010011012
**4050809
***607
```

If $N = 4$, then pattern will be:

```
1020304017018019020
**50607014015016
***809012013
****10011
```

Constraints

$2 \leq N \leq 100$

Input Format

First line contains T , the number of test cases

Each test case contains a single integer N

Output

First line print Case # i where i is the test case number

In the subsequent line, print the pattern

Test Case 1

```
3
3
4
5
```

Output

Case #1

```
10203010011012
**4050809
```

***607

Case #2

1020304017018019020

**50607014015016

***809012013

*****10011

Case #3

102030405026027028029030

**6070809022023024025

***10011012019020021

*****13014017018

*****15016