Ques $a, b \Rightarrow a^b$ Power

a^b

2
5

$\Rightarrow 2^5 = 32$

$a \times a \times a \times a \times a \ldots\ldots a$ (b times)

num

$3^2 \quad 3 \times 3$

$4^5 \Rightarrow 4 \times 4 \times 4 \times 4 \times 4$

```
int num = 2
int b = 5
int pow = 1;
for(int i = 1; i<=b; i++) {
    pow = pow * num;
}
```

pow	32
b	5
num	2
i	6

Ques $\log_b a$

$\log_2 32 = 5$

33
34
.
.
63

$= 5$

$a = 32$

$b = 2$

$32 / 2 = 16$ (1)

$a = 16/2 = 8$ (2)

$a = 8/2 = 4$ (3)

$a = 4/2 = 2$ (4)

$2/2 = 1$ (5)

Ques Pattern

$n = 4$

```
    1 2 3 4
1   *
2   * *
3   * * *
4   * * * *
```

```
for(int col = 1; col <= 5; col++)
    syso(*)
```

```
for(int row = 1; row <= n; row ++) {

}
```

Ques

n = 5

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

Ques

n = 4

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

Ques

n = 5

```
    1  2  3  4  5
1   1
2   1  0
3   1  0  1
4   1  0  1  0
5   1  0  1  0  1
```

Ques

n = 6

```
1 2 3 4 5 6
1
1 1
1 0 1
1 0 0 1
1 0 0 0 1
1 0 0 0 0 1
```

```
for(          )
    for(          )
        if(col==1 || col==row)
            syso(1)
        else syso(0)
```

Ques

n = 4

```
    1  2  3  4
1   *  *  *  *
2   *  *  *
3   *  *
4   *
```

row	col s	col e
1	1	4
2	1	3
3	1	2
4	1	1

$r + c = n + 1$

$c = n + 1 - r$

Ques

n=4

row	no of spaces
1	3
2	2
3	1
4	0

' ' = n - row

no of space

Contest Question

h_1

h_2

v_1

v_2

① $v_2 > v_1$

	G	S	
H	10	2	8
V	2	4	2

1	12	6
2	14	10
3	16	14
4	18	18