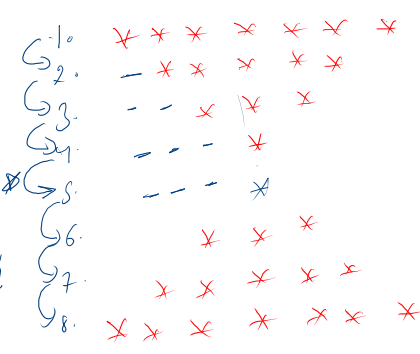


h=1

```

if (x == h) {
    w += 2;
    w += 1;
} else {
    w += 2;
    w -= 1;
}

```



if w == 1, w == 2

h=4

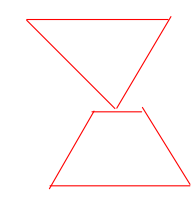


```

if (x < h) {
    w += 2;
    w += 1;
} else {
    w += 2;
    w -= 1;
}

```

// x: 4, 5, 6, 7



```

if w == 2h+1, w == 0;
for (int x = 1; x < 2*h; x++) {
    for (space)
        for (row)

```

```

if (x < h) {
    w += 2;
    w += 1;
} else {
    w += 2;
    w -= 1;
}

```

$$n = 5$$

condition: (n is always odd number)

```

      *
    * * *
  * * * * *
* * * * * *
  * * *
    * *
      *
  
```

```

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

```

      1
    2 3 2
  3 4 5 4 3
4 5 6 7 6 5 4
  3 4 5 4 3
    2 3 2
      1
  
```

```

1. - - - x
2. - - x x x
3. - x x x x x
4. x x x x x x x
5.   x x x x x
6.     x x x
7.       x
  
```

n	ns+	ns-
5	1	2
7	1	3
9	1	4
11	1	5
n	1	(n/2)

(random thinking)

```

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

```

if (x >= n/2 + 1) {
  cout << n - x + 1;
}
  
```

```

int ns+ = 1, ns- = (n/2)
for (int x = 1; x <= n; x++) {
  for (space)
  for (step):
  
```

```

if (x <= n/2) { // 1, 2, 3
  ns+ += 2;
  ns- ++;
}
  
```

```

else {
  ns+ --;
  ns- += 2;
}
  
```

```

int nst = 1, nsp = n / 2;
for (int r = 1; r <= n; r++) {
    for (int csp = 1; csp <= nsp; csp++)
        System.out.print(s: " ");

    int count = r;
    if (r > n / 2 + 1)
        count = n - r + 1;

    for (int cst = 1; cst <= nst; cst++){
        System.out.print(count + " ");
        if(cst <= nst / 2){
            count++;
        }else{
            count--;
        }
    }

    if (r <= n / 2) {
        nst += 2;
        nsp--;
    } else {
        nst -= 2;
        nsp++;
    }
    System.out.println();
}

```

$nst = 1, 2, 3, 4, 5, 6, 7, 8, 9$  — — — 1

$nsp = 8, 7, 6, 5, 4, 3, 2, 1$  — — 2 3 2

$r = 8, 7, 6, 5, 4, 3, 2, 1$  — 3 4 5 4 3

$count = 1$  4 5 6 7 6 5 4

$cst = 1$  — 3 4 5 4 3

— — 2 2 2

— — — 1

$7 - 7 + 9 = 1$