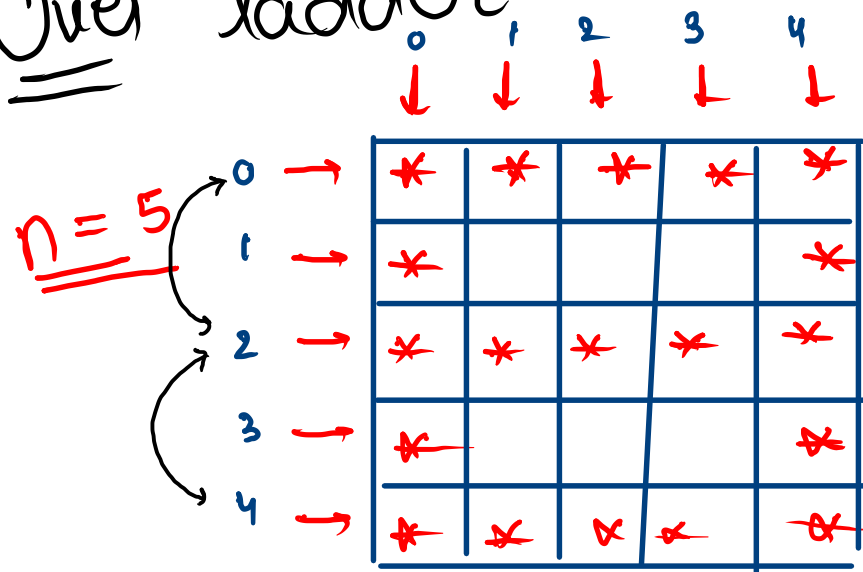


Pattern revision

Ques ladder

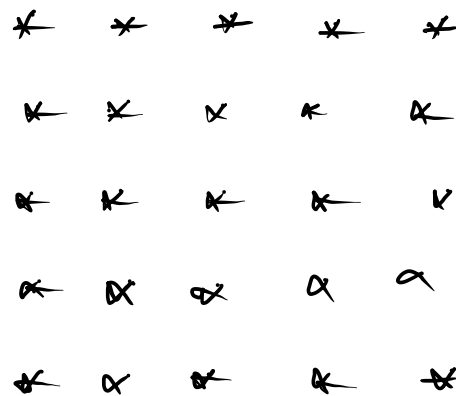


$n = 0, 4$
 $c = 0, 4$

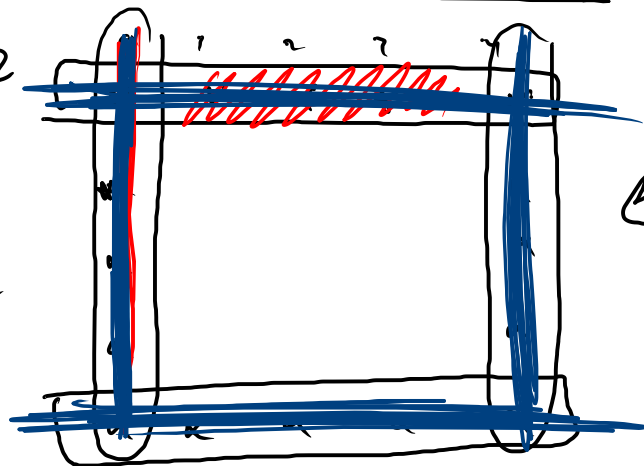
(a) $i = 0, i = n - 1$
 (b) $j = 0, j = n - 1$
 (c) (d)

step 1

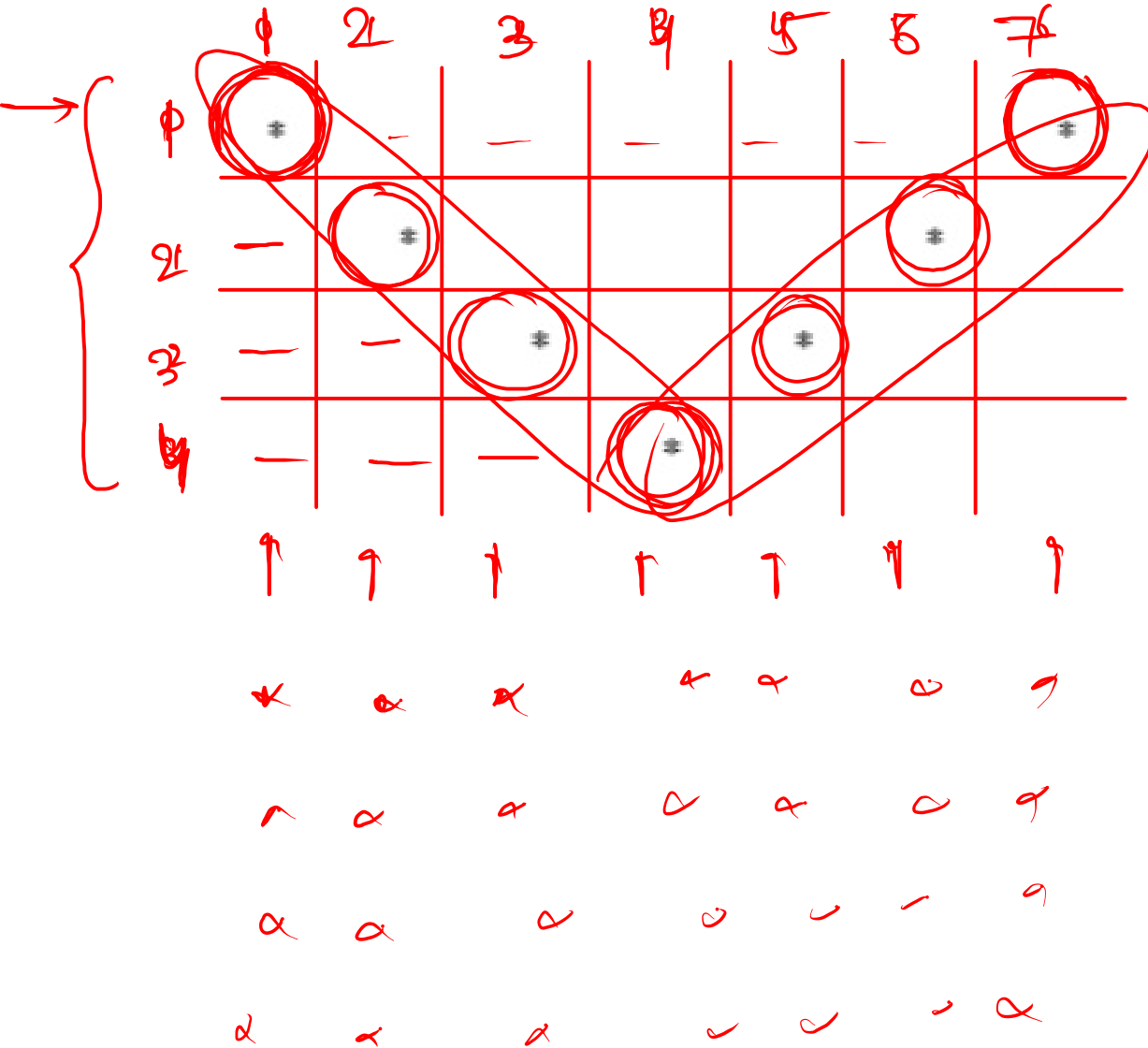
$n = 5$



step 2



HW_Print V Pattern



$$m = 7$$

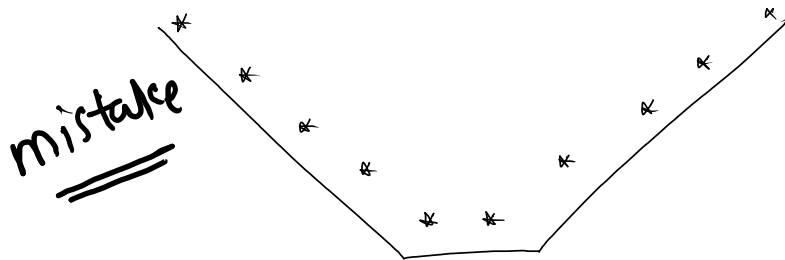
$$\text{row} = (m/2) + 1 \quad // \quad 4$$

$$\left. \begin{array}{l} \text{star1} = 1 \\ \text{star2} = 7 \end{array} \right\}$$

⇒ V pattern

m=9

```
Scanner scn = new Scanner(System.in);
int m = scn.nextInt();
int row = (m / 2) + 1;
int star1 = 1;
int star2 = 2 * row - 1;
→ for(int i = 1; i <= row; i++){
    for (int j = 1; j <= m; j++) {
        if (j == star1 || j == star2) {
            System.out.print("*\t");
        } else {
            System.out.print("\t");
        }
    }
    star1++;
    star2--;
    System.out.println();
}
```



row = 5

star1 = ~~1~~ ~~2~~ ~~3~~ ~~4~~ 5

star2 = 9 ~~8~~ ~~7~~ ~~6~~ ~~5~~

	1	2	3	4	5	6	7	8	9
1	*								*
2		*						*	
3			*				*		
4				*		*			
5					*				

HW_Print Dumroo Pattern

Code

```
public static void main(String[] args) {  
    Scanner scn = new Scanner(System.in);  
    int n = scn.nextInt();
```

```
    int nst = n;
```

```
    int nsp = 0;
```

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

```
        for(int j = 1; j <= nsp; j++){  
            System.out.print("\t");  
        }
```

```
        for(int j = 1; j <= nst; j++){  
            System.out.print("*\t");  
        }
```

```
        if(i <= n / 2){
```

```
            nst -= 2;
```

```
            nsp++;
```

```
        } else {
```

```
            nst += 2;
```

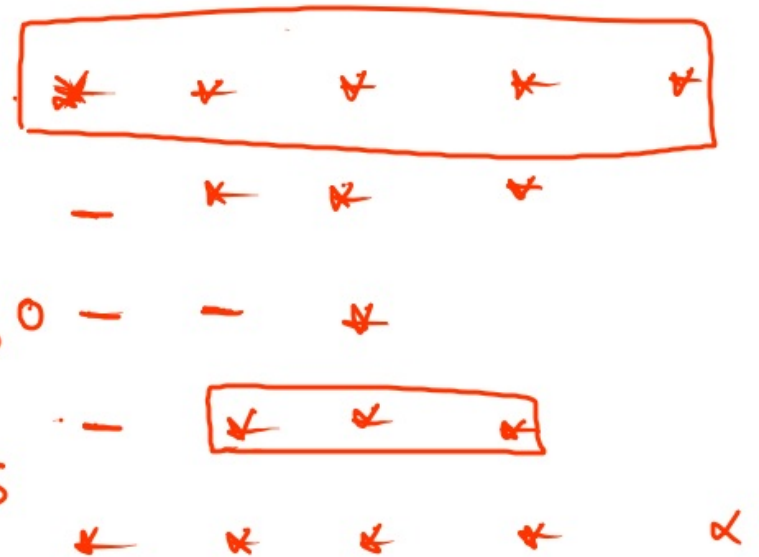
```
            nsp--;
```

```
        }
```

```
        System.out.println();
```

```
    }
```

```
}
```



Ques Square without top

```
public static void main(String[] args) {
    Scanner scn = new Scanner(System.in);
    int n = scn.nextInt();
    solve(n);
}

public static void solve(int n) {
    for (int i = 0; i < n; i++) {
        for (int j = 0; j < n; j++) {
            if (i == n - 1 || j == 0 || j == n - 1) {
                System.out.print("*");
            } else {
                System.out.print(" ");
            }
        }
        System.out.println();
    }
}
```

Hw_Print Inverted triangle

7	*	*	*	*	*	*	*
5	-	*	*	*	*	*	
3	-	-	*	*	*		
1	-	-		*			

m=7 ~~row~~ row = (m/2) + 1 ;

int st = m ;

int sp = 0 ;

for (int i = 0 ; i < ^{row} ; i++) {

for (int j = 0 ; j < sp ; j++) {

syso (" ");

}

for (int j = 0 ; j < st ; j++) {

syso ("*");

}

sp++;

st -= 2;

sysoln();

}

Ques ladder code

```
public static void main(String[] args) {
    Scanner scn = new Scanner(System.in);
    int n = scn.nextInt();
    solve(n);
}

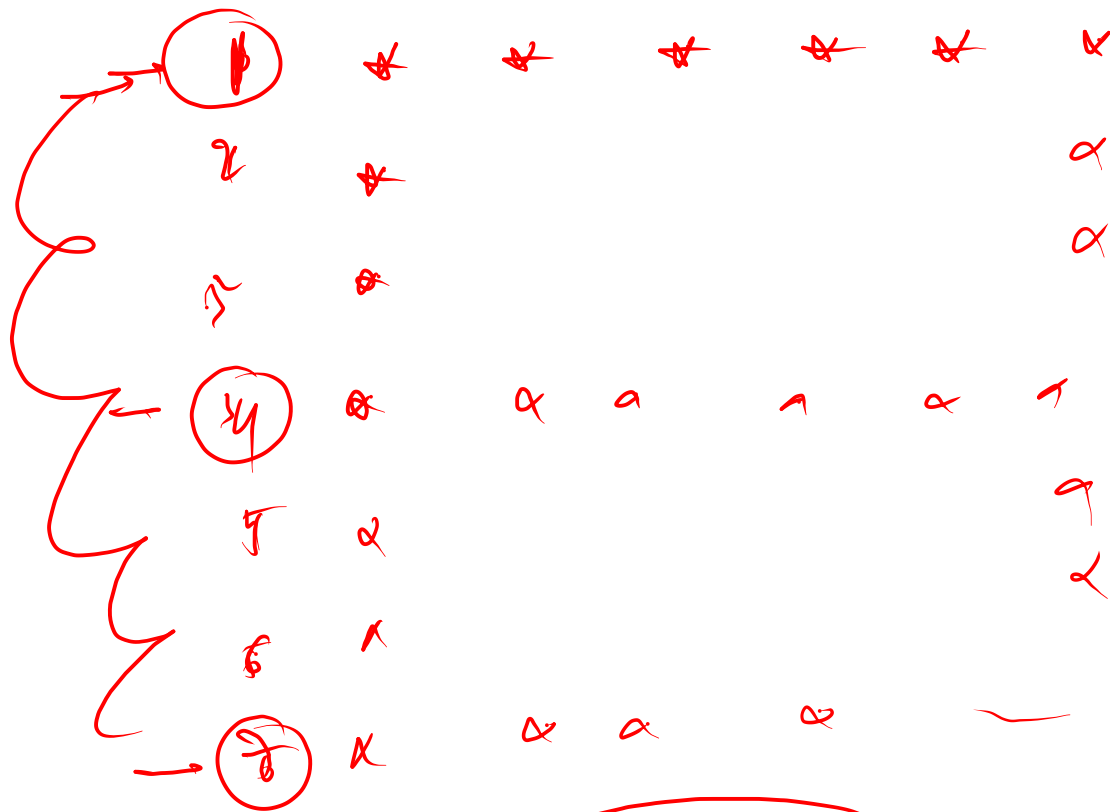
public static void solve(int n) {
    for (int i = 0; i < n; i++) {
        for (int j = 0; j < n; j++) {
            if (i == 0 || i == n - 1 || j == 0 || j == n - 1 || i % 2 == 0) {
                System.out.print("*\t");
            } else {
                System.out.print("\t");
            }
        }
        System.out.println();
    }
}
```

$$\underline{\underline{n=3}}$$

$\begin{matrix} * & * & * \\ * & & * \\ * & * & * \end{matrix}$

$$\underline{\underline{n=7}}$$

$\begin{matrix} . & * & * & * & * & * & * \\ - & * & & & & & * \\ - & * & * & * & * & * & * \\ - & * & & & & & * \\ - & * & & & & & * \\ & & & & & & * \\ & & & & & & * \end{matrix}$



$$i 9.3 = 1$$

$$1 9.3 = 1$$