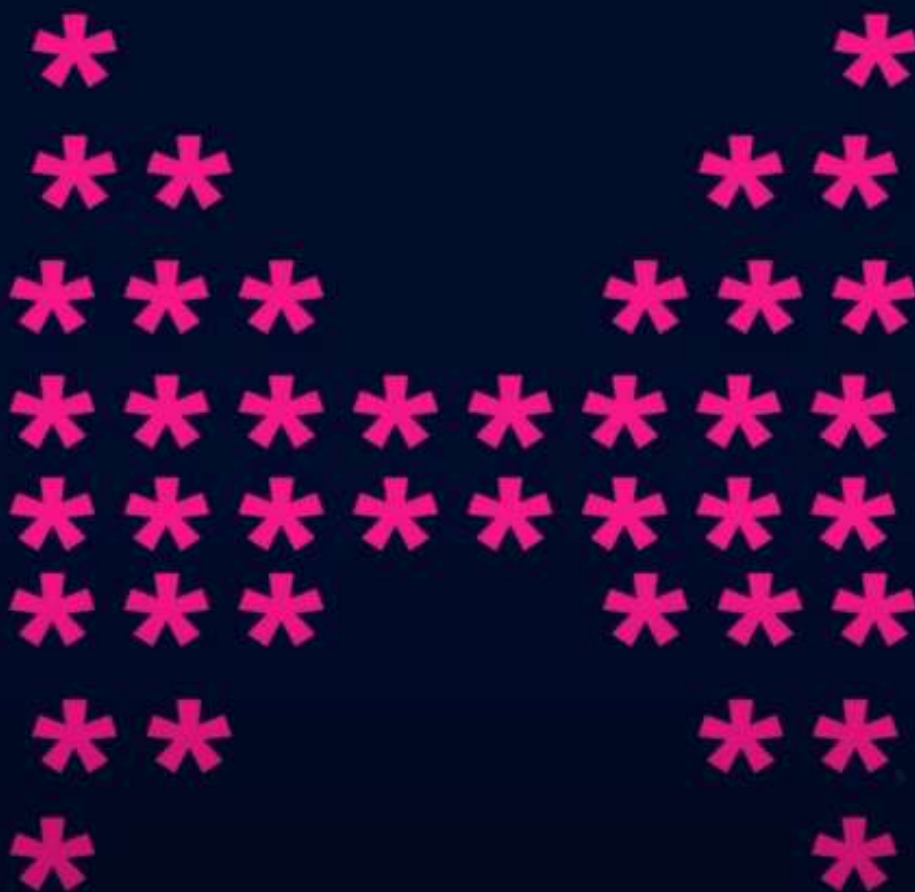


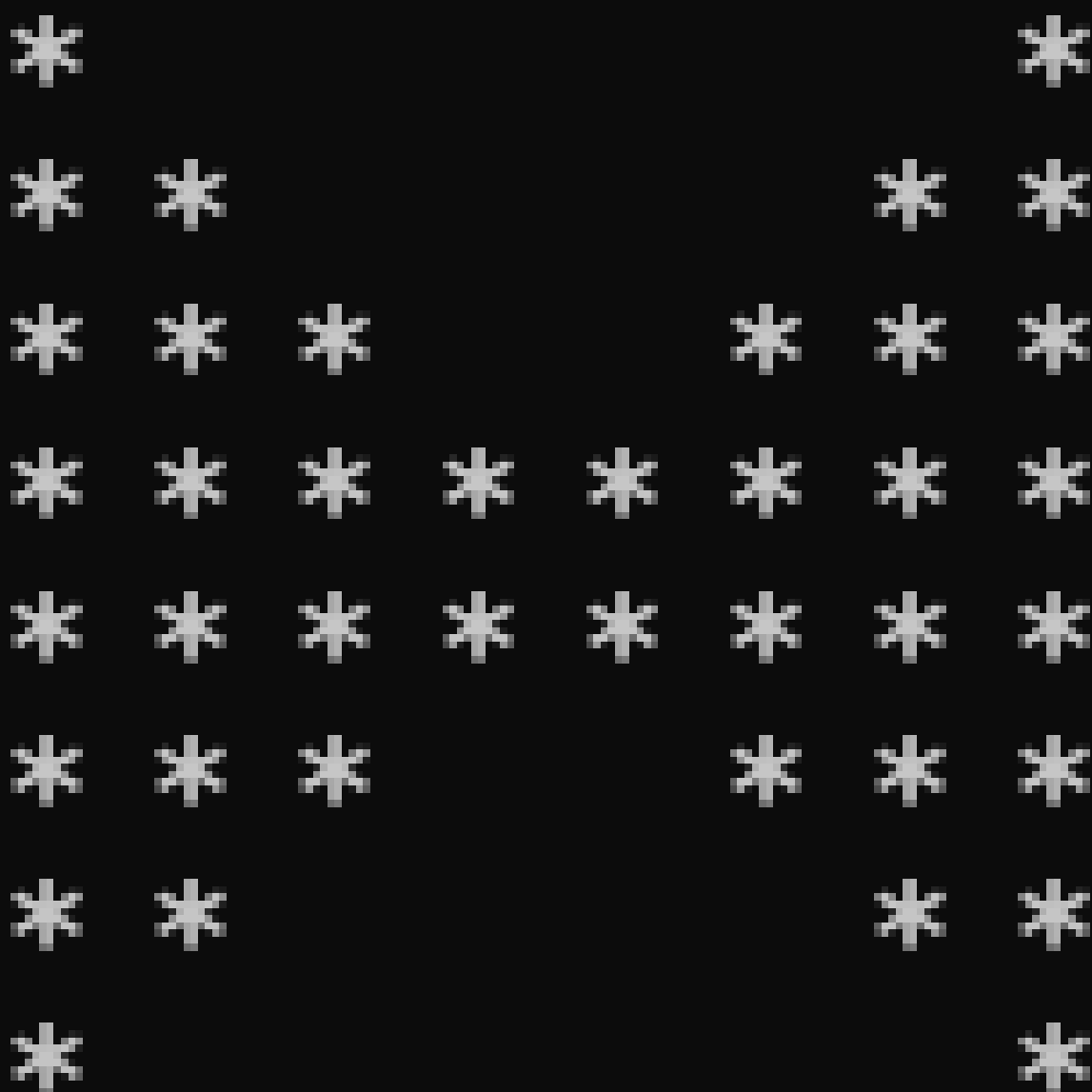
10. Print the pattern

$n = 4$



```
1  import java.util.Scanner;
2  public class ButterflyPattern{
    Run | Debug | Run main | Debug main
3      public static void main(String[] args)
4      {
5          @SuppressWarnings("resource")
6          Scanner sc = new Scanner(System.in);
7          int n = sc.nextInt();
8          for(int i=0;i<n;i++)
9          {
10             for(int j=0;j<n;j++)
11             {
12                 if(j<=i)
13                 {
14                     System.out.print(s:"* ");
15                 }
16                 else{
17                     System.out.print(s:"  ");
18                 }
19             }
20             for(int j=0;j<n;j++)
21             {
22                 if((i+j)>=n-1)
23                 {
24                     System.out.print(s:"* ");
25                 }
26                 else{
27                     System.out.print(s:"  ");
28                 }
29             }
30             System.out.println();
31         }
32         for(int i=0;i<n;i++)
33         {
34             for(int j=0;j<n;j++)
35             {
36                 if((i+j)<n)
37                 {
38                     System.out.print(s:"* ");
39                 }
40                 else{
41                     System.out.print(s:"  ");
42                 }
43             }
44             for(int j=0;j<n;j++)
45             {
46                 if(i<=j)
47                 {
48                     System.out.print(s:"* ");
49                 }
50                 else{
51                     System.out.print(s:"  ");
52                 }
53             }
54             System.out.println();
55         }
56     }
57 }
```

4



11. Print the pattern

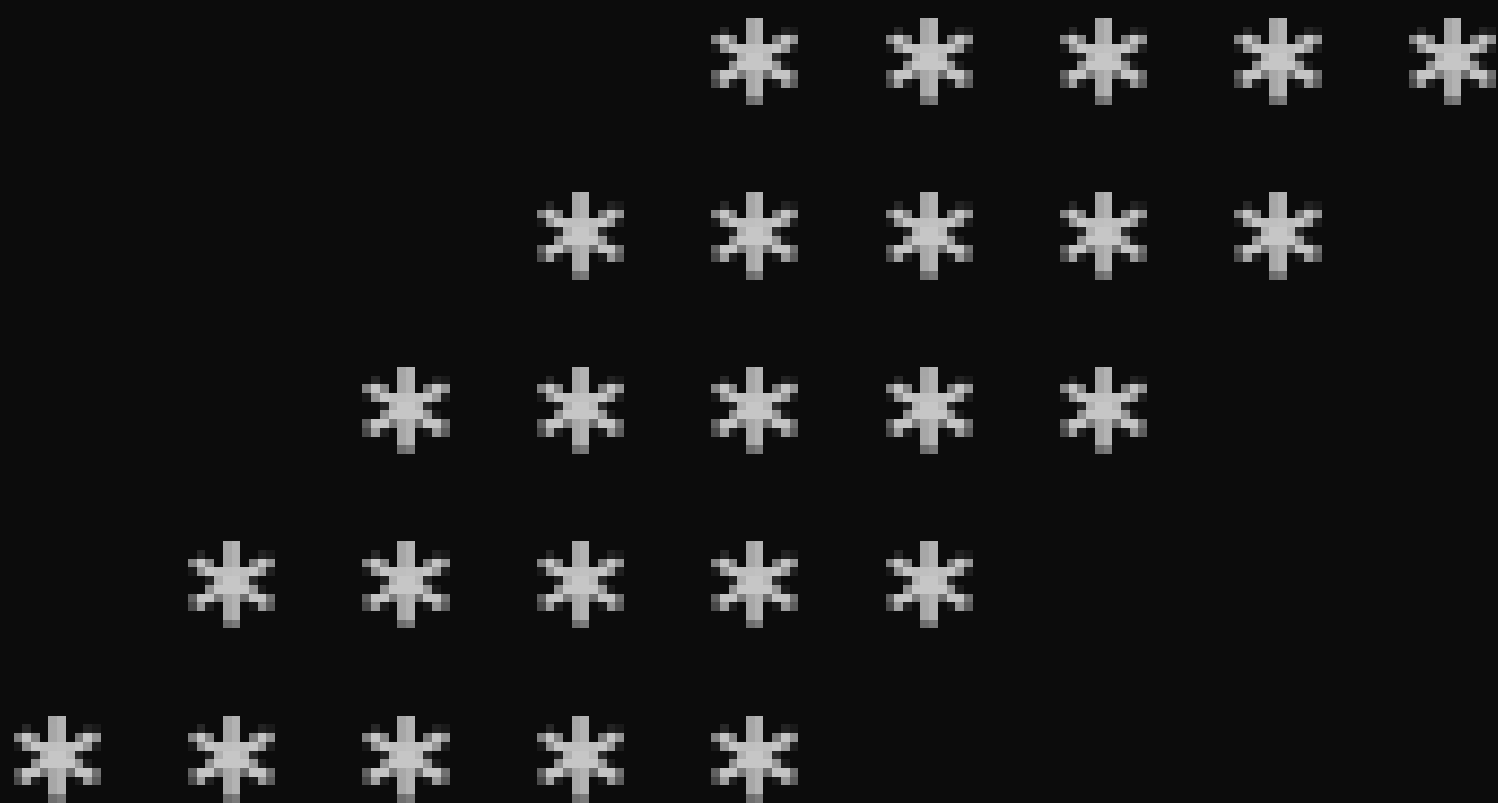
$n=5$

```

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

```
1  import java.util.Scanner;
2  public class SolidRhombus {
    Run | Debug | Run main | Debug main
3      public static void main(String[] args) {
4          @SuppressWarnings("resource")
5          Scanner sc = new Scanner(System.in);
6          int n = sc.nextInt();
7          for(int i=0;i<n;i++)
8          {
9              for(int j=0;j<n-i;j++)
10             {
11                 if((i+j)>=n-1)
12                 {
13                     System.out.print(s:"* ");
14                 }
15                 else{
16                     System.out.print(s:"  ");
17                 }
18             }
19             for(int j=1;j<n;j++)
20             {
21                 if((i+j)<n)
22                 {
23                     System.out.print(s:"* ");
24                 }
25             }
26             System.out.println();
27         }
28     }
29 }
30
```

5



12. Print the pattern

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




```
1  import java.util.Scanner;
2  public class NumberPyramid {
    Run | Debug | Run main | Debug main
3      public static void main(String[] args) {
4          @SuppressWarnings("resource")
5          Scanner sc = new Scanner(System.in);
6          int n = sc.nextInt();
7          for(int i=0;i<n;i++)
8          {
9              for(int j=0;j<n;j++)
10             {
11                 if((i+j)>=n-1)
12                 {
13                     if((i+j)%2==0)
14                     {
15                         System.out.print((i+1)+" ");
16                     }else
17                     {
18                         System.out.print(s:" ");
19                     }
20                 }else
21                 {
22                     System.out.print(s:" ");
23                 }
24             }
25             for(int j = 1;j<n;j++)
26             {
27                 if(j<=i)
28                 {
29                     if((i+j)%2==0)
30                     {
31                         System.out.print((i+1)+" ");
32                     }else
33                     {
34                         System.out.print(s:" ");
35                     }
36                 }
37             }
38             System.out.println();
39         }
40     }
41 }
```


13. Print the pattern $n=5$

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

```

1  import java.util.Scanner;
2  public class PalindromicPattern {
    Run | Debug | Run main | Debug main
3      public static void main(String[] args)
4      {
5          @SuppressWarnings("resource")
6          Scanner sc = new Scanner(System.in);
7          int n = sc.nextInt();
8          for(int i=0;i<=n;i++)
9          {
10             for(int j=5;j>0;j--)
11             {
12                 if(i>=j)
13                 {
14                     System.out.print(j+" ");
15                 }
16                 else{
17                     System.out.print(s:" ");
18                 }
19             }
20             for(int j=2;j<=n;j++)
21             {
22                 if(j<=i)
23                 {
24                     System.out.print(j+" ");
25                 }
26                 else{
27                     System.out.print(s:" ");
28                 }
29             }
30             System.out.println();
31         }
32     }
33 }
34

```

5

1

2 1 2

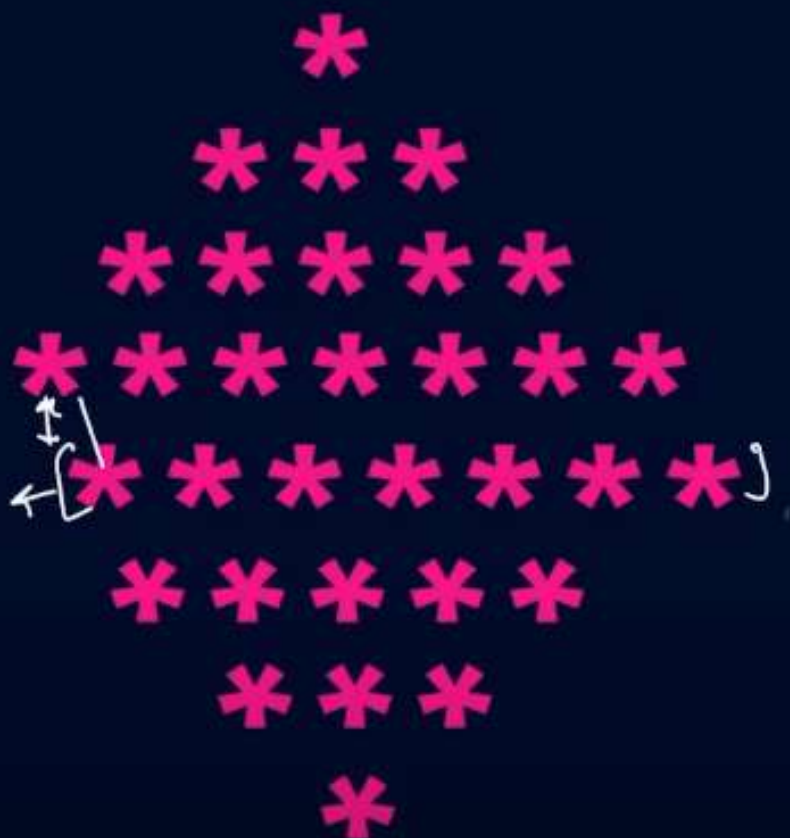
3 2 1 2 3

4 3 2 1 2 3 4

5 4 3 2 1 2 3 4 5

14. Print the pattern

$n = 4$



```
2    public class DiamondPattern {
3        public static void main(String[] args)
30            for(int j=0;j<n;j++)
31            {
32                if(j>=i)
33                {
34                    System.out.print(s:"* ");
35                }else{
36                    System.out.print(s:"  ");
37                }
38            }
39            for(int j=0;j<n;j++)
40            {
41                if((i+j)<n)
42                {
43                    System.out.print(s:"* ");
44                }
45            }
46            System.out.println();
47        }
48    }
49 }
50
```

4

* *

* * * *

* * * * *

* * * * *

* * * * *

* * * * *

* * * *

* *