

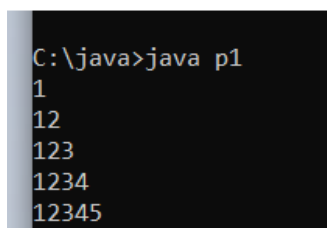
Assignment-2:

Part-1.

1.

```
class p1{  
    public static void main(String args[]){  
        for(int i=1;i<=5;i++)  
        {  
            for(int j=1;j<=i;j++)  
            {  
                System.out.print(j);  
            }  
            System.out.println();  
        }  
    }  
}
```

output:



```
C:\java>java p1  
1  
12  
123  
1234  
12345
```

2.

```
class p2{  
    public static void main(String args[]){  
        for(int i=65;i<70;i++)  
        {
```

```

        for(int j=65;j<=i;j++)
        {
            System.out.print((char)j);

        }

        System.out.println();

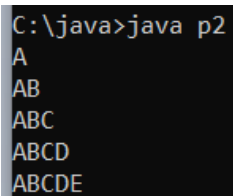
    }

}

}

```

Output:



```

C:\java>java p2
A
AB
ABC
ABCD
ABCDE

```

3.

```

class p3{

    public static void main(String args[]){

        for(int i=1;i<=5;i++)

        {

            for(int j=1;j<=i;j++)

            {

                System.out.print("*");

            }

            System.out.println();

        }

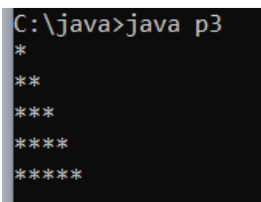
    }

}

```

```
}
```

Output:

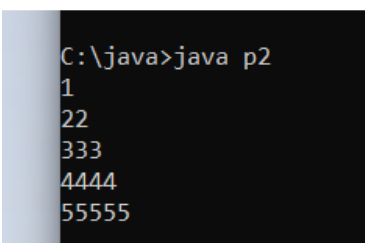


```
C:\java>java p3
*
**
***
****
*****
```

4.

```
class p2{
    public static void main(String args[]){
        for(int i=1;i<=5;i++)
        {
            for(int j=1;j<=i;j++)
            {
                System.out.print(i);
            }
            System.out.println();
        }
    }
}
```

Output:



```
C:\java>java p2
1
22
333
4444
55555
```

5.

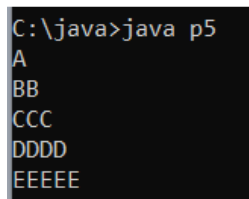
```
class p5{
    public static void main(String args[]){
        for(int i=65;i<70;i++)
```

```

{
    for(int j=65;j<=i;j++)
    {
        System.out.print((char)i);
    }
    System.out.println();
}
}
}

```

Output:



```

C:\java>java p5
A
BB
CCC
DDDD
EEEE

```

6.

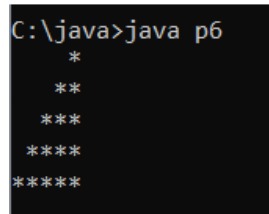
```

class p6{
    public static void main(String args[]){
        for(int i=1;i<=5;i++)
        {
            for(int j=5;j>i;j--){
                System.out.print(" ");
            }
            for(int j=1;j<=i;j++)
            {
                System.out.print("*");
            }
            System.out.println();
        }
    }
}

```

```
}  
}
```

Output:



```
C:\java>java p6  
*  
**  
***  
****  
*****
```

7.

```
class p7{  
    public static void main(String args[]){  
        //int c=0;  
        for(int i=1;i<=5;i++){  
            {  
                for(int j=5;j>i;j--){  
                    System.out.print(" ");  
                }  
                for(int j=1;j<=i;j++){  
                    {  
                        //c++;  
                        System.out.print(j+" ");  
                    }  
                    System.out.println();  
                }  
            }  
        }  
    }  
}
```

Output:

```
C:\java>java p7
1
1 2
1 2 3
1 2 3 4
1 2 3 4 5
```

8.

```
class p8{
    public static void main(String args[]){
        //int c=0;
        for(int i=1;i<=5;i++)
        {
            for(int j=5;j>i;j--){
                System.out.print(" ");
            }
            for(int j=1;j<=5;j++){
                {
                    if(j>5-i){
                        System.out.print(j+" ");
                    }
                }
            }
            System.out.println();
        }
    }
}
```

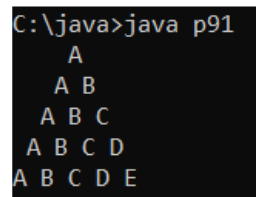
Output:

```
C:\java>java p8
5
4 5
3 4 5
2 3 4 5
1 2 3 4 5
```

9.

```
class p91{  
    public static void main(String args[]){  
        //int c=0;  
        for(int i=65;i<70;i++)  
        {  
            for(int j=69;j>i;j--){  
                System.out.print(" ");  
            }  
            for(int j=65;j<=i;j++)  
            {  
                System.out.print((char)j+" ");  
            }  
            System.out.println();  
        }  
    }  
}
```

Output:



```
C:\java>java p91  
A  
A B  
A B C  
A B C D  
A B C D E
```

10.

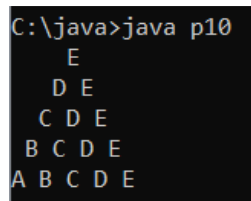
```
class p10{  
    public static void main(String args[]){  
        int c=0;
```

```

        for(int i=65;i<=69;i++)
        {
            c++;
            for(int j=69;j>i;j--){
                System.out.print(" ");
            }
            for(int j=65;j<=69;j++)
            {
                if(j>=70-c){
                    System.out.print((char)j+" ");
                }
            }
            System.out.println();
        }
    }
}

```

Output:



```

C:\java>java p10
    E
   D E
  C D E
 B C D E
A B C D E

```

11.

```

class p11{
    public static void main(String args[]){
        for(int i=1;i<=11;i++)
        {
            if(i%2!=0){
                for(int j=11;j>i;j--){
                    System.out.print(" ");
                }
            }
        }
    }
}

```

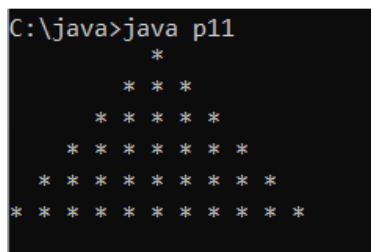


```

    }
    for(int j=1;j<=i;j++)
    {
        System.out.print("* ");
        //j++;
    }
    System.out.println();
}
}
}
}

```

Output:



The screenshot shows a terminal window with the command `C:\java>java p11` and the output of a Java program. The output is a 5x5 grid of asterisks, where each row contains 5 asterisks separated by a space. The grid is as follows:

```

      *
     * * *
    * * * * *
   * * * * * *
  * * * * * * *
 * * * * * * *
* * * * * * *

```

12.

```

class p12{
    public static void main(String args[]){
        for(int i=1;i<=5;i++)
        {
            for(int j=5;j>i;j--){
                System.out.print(" ");
            }
            for(int j=1;j<=i;j++)
            {
                System.out.print(i+" ");
            }
        }
    }
}

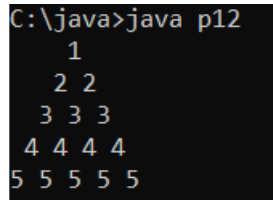
```

```

    }
    System.out.println();
}
}
}

```

Output:



```

C:\java>java p12
1
2 2
3 3 3
4 4 4 4
5 5 5 5 5

```

13.

```

class p13{
    public static void main(String args[]){
        for(int i=65;i<=69;i++)
        {
            for(int j=69;j>i;j--){
                System.out.print(" ");
            }
            for(int j=65;j<=i;j++){
                System.out.print((char)i+" ");
            }
            System.out.println();
        }
    }
}

```

Output:

```
C:\java>java p13
A
B B
C C C
D D D D
E E E E E
```

14.

```
class p14{
    public static void main(String args[]){
        for(int i=5;i>=1;i--){
            {
                for(int j=1;j<=5;j++){
                    {
                        if(j<=i){
                            System.out.print(j+" ");
                        }
                    }
                }
                System.out.println();
            }
        }
    }
}
```

Output:

```
C:\java>java p14
1 2 3 4 5
1 2 3 4
1 2 3
1 2
1
```

15.

```

class p15{

    public static void main(String args[]){

        for(int i=1;i<=5;i++)

        {

            for(int j=5;j>=1;j--)

            {

                if(j>=i){

                    System.out.print(j+" ");

                }

            }

            System.out.println();

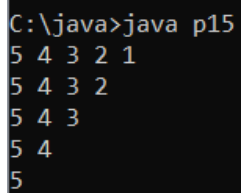
        }

    }

}

```

Output:



```

C:\java>java p15
5 4 3 2 1
5 4 3 2
5 4 3
5 4
5

```

16.

```

class p16{

    public static void main(String args[]){

        for(int i=5;i>=1;i--)

        {

            for(int j=5;j>=1;j--)

            {

                if(j>=i){

                    System.out.print(j+" ");

                }

            }

            System.out.println();

        }

    }

}

```

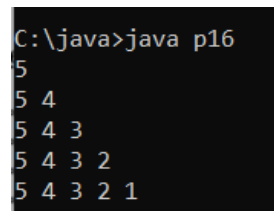
```

        {
            if(j>=i){
                System.out.print(j+" ");
            }
        }

        System.out.println();
    }
}

```

Output:



```

C:\java>java p16
5
5 4
5 4 3
5 4 3 2
5 4 3 2 1

```

17.

```

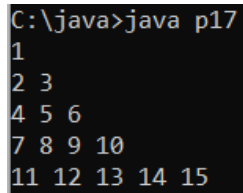
class p17{
    public static void main(String args[]){
        int c=0;
        for(int i=1;i<=5;i++)
        {

            for(int j=1;j<=i;j++)
            {
                c++;
                System.out.print(c+" ");
            }
        }
    }
}

```

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

Output:



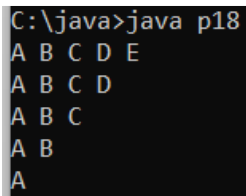
```
C:\java>java p17  
1  
2 3  
4 5 6  
7 8 9 10  
11 12 13 14 15
```

18.

```
class p18{  
    public static void main(String args[]){  
        int c=70;  
        for(int i=65;i<=69;i++)  
        {  
            c--;  
            for(int j=65;j<=69;j++)  
            {  
                if(j<=c)  
                    System.out.print((char)j+" ");  
            }  
  
            System.out.println();  
        }  
    }  
}
```

```
}
```

Output:



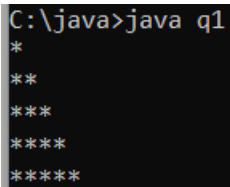
```
C:\java>java p18
A B C D E
A B C D
A B C
A B
A
```

Part-2:

1.

```
class q1{
    public static void main(String args[]){
        for( int i=1;i<=5;i++){
            for(int j=1;j<=i;j++){
                System.out.print("*");
            }
            System.out.println("");
        }
    }
}
```

Output:



```
C:\java>java q1
*
**
***
****
*****
```

2.

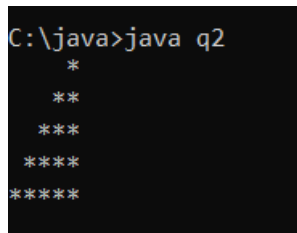
```
class q2{
    public static void main(String args[])
    {
```

```

for(int i=1;i<=5;i++){
for(int j =4;j>=i;j--){
    System.out.print(" ");
    }
for(int j=1;j<=i;j++){
    System.out.print("*");
    }
    System.out.println();
}
}
}

```

Output:



```

C:\java>java q2
*
**
***
****
*****

```

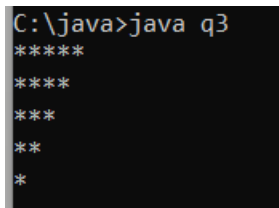
3.

```

public static void main(String args[])
{
for(int i=1;i<=5;i++){
for(int j=1;j<=6-i;j++){
    System.out.print("*");
    }
    System.out.println();
}
}
}

```


Output:



```
C:\java>java q3
*****
****
***
**
*
```

4.

```
class q4{

    public static void main(String args[])

    {

        for(int i=1;i<=5;i++){

            for(int j=1;j<=5;j++){

                if(j>=i){

                    System.out.print("*");

                }

                else{

                    System.out.print(" ");

                }

            }

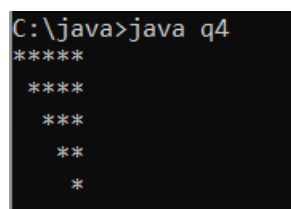
            System.out.println();

        }

    }

}
```

Output:

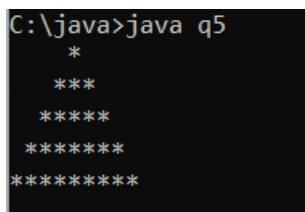


```
C:\java>java q4
*****
****
***
**
*
```

5.

```
class q5{  
    public static void main(String args[])  
    {  
        for(int i=1;i<=5;i++){  
            for(int j =4;j>=i;j--){  
                System.out.print(" ");  
            }  
            for(int j=1;j<i;j++){  
                System.out.print("*");  
            }  
  
            for(int j=1;j<=i;j++){  
                System.out.print("*");  
            }  
            System.out.println("");  
        }  
    }  
}
```

Output:



```
C:\java>java q5  
*  
**  
***  
****  
*****  
*****  
*****
```

6.

```
class q6{  
    public static void main(String args[])  
    {
```

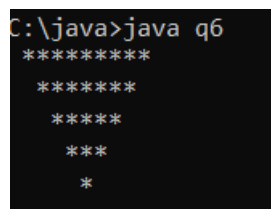
```

for(int i=1;i<=5;i++){
for(int j =0;j<i;j++){
    System.out.print(" ");
}
for(int j=5;j>i;j--){
    System.out.print("*");
}

for(int j=5;j>=i;j--){
    System.out.print("*");
}
    System.out.println("");
}
}
}

```

Output:



```

C:\java>java q6
*****
****
***
**
*

```

7.

```

class q7{

    public static void main(String args[]){

for(int i=1;i<=4;i++){

    for(int j =4;j>=i;j--){

        System.out.print(" ");

    }

```

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

```
for(int j=1;j<=i;j++){  
    System.out.print("*");  
}  
System.out.println("");  
}
```

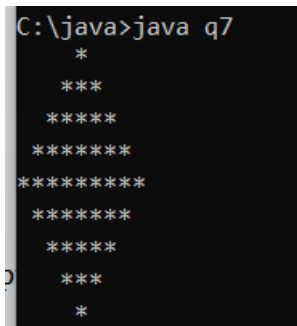
```
for(int i=1;i<=5;i++){  
for(int j =1;j<i;j++){  
    System.out.print(" ");  
}
```

```
for(int j=5;j>i;j--){  
    System.out.print("*");  
}
```

```
for(int j=5;j>=i;j--){  
    System.out.print("*");  
}  
System.out.println("");  
}  
}
```

```
}
```

Output:

A screenshot of a terminal window with a black background and yellow text. The prompt is 'C:\java>java q7'. The output is a diamond pattern of asterisks: a single '*' on the first line, followed by three lines of increasing width (3, 5, 7 asterisks), then three lines of decreasing width (5, 3, 1 asterisk), and finally a single '*' on the last line.

```
C:\java>java q7
 *
***
*****
*****
*****
***
 *
 *
```

8.

```
class q8{

    public static void main(String args[]){

        for(int i=1;i<5;i++){

            for(int j=1;j<=i;j++){

                System.out.print("*");

            }

            System.out.println();

        }

        for(int i=1;i<=5;i++){

            for(int j=5;j>=i;j--){

                System.out.print("*");

            }

            System.out.println();

        }

    }

}
```

Output:

```
C:\java>java q8
*
**
***
****
*****
*****
****
***
**
*
```

9.

```
class q9{
    public static void main(String args[])
    {
        for(int i=1;i<5;i++){
            {
                for(int j=4;j>=i;j--){
                    System.out.print(" ");
                }

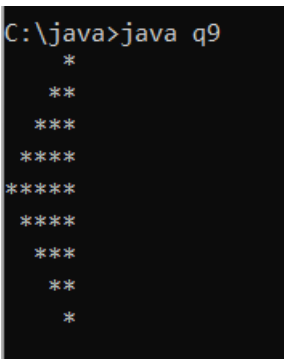
                for(int j=1;j<=i;j++){
                    System.out.print("*");
                }
            }
            System.out.println();
        }
        for(int i=1;i<=5;i++){
            for(int j=1;j<i;j++){
                System.out.print(" ");
            }
        }
    }
}
```

```

        }
        for(int j=5;j>=i;j--)
        {
            System.out.print("*");
        }
        System.out.println();
    }
}
}

```

Output:



```

C:\java>java q9
*
**
***
****
*****
****
***
**
*

```

10.

```

class q10{
    public static void main(String args[]){
        for(int i =1;i<=5;i++)
        {
            for(int j =5;j>i;j--)
            {
                System.out.print(" ");
            }
        }
    }
}

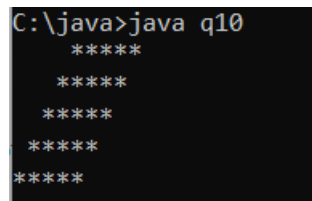
```

```

        for(int j =1;j<=5;j++){
            System.out.print("*");
        }
        System.out.println();
    }
}

```

Output:



```

C:\java>java q10
*****
*****
*****
*****
*****

```

11.

```

class q11{
    public static void main(String args[]){
        for(int i =1;i<=5;i++)
        {
            for(int j =1;j<i;j++)
            {
                System.out.print(" ");
            }
            for(int j =1;j<=5;j++){
                System.out.print("*");
            }

```



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

Output:

```
C:\java>java q11
*****
*****
*****
*****
*****
*****
```

12.

```
class q12{

    public static void main(String args[])

    {

        for(int i=1;i<5;i++){

            {

                for(int j=5;j>=i;j--){

                    System.out.print("*");

                }

                for(int j=1;j<=i;j++){

                    System.out.print(" ");

                }

                System.out.println();

            }

        }

    }

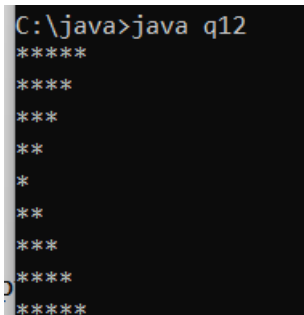
}
```

```

        for(int i=1;i<=5;i++){
            for(int j =1;j<=i;j++){
                System.out.print("*");
            }
            for(int j=5;j>=i;j--){
                System.out.print(" ");
            }
            System.out.println();
        }
    }
}

```

Output:



```

C:\java>java q12
*****
****
***
**
*
**
***
****
*****

```

13.

```

class q13{
    public static void main(String args[]){
        for(int i=1;i<5;i++){
            for(int j=1;j<i;j++){
                System.out.print(" ");
            }
        }
    }
}

```

```

    }

    for(int j=5;j>=i;j--){

        System.out.print("*");

    }

    System.out.println();

}

for(int i=1;i<=5;i++){

    for(int j=5;j>i;j--){

        System.out.print(" ");

    }

    for(int j=1;j<=i;j++){

        System.out.print("*");

    }

    System.out.println();

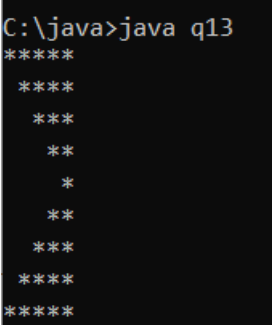
}

}

}

```

Output:



```

C:\java>java q13
*****
 *   *
  ** 
 *** 
**** 
*****
 *   *
  ** 
 *** 
**** 
*****
 *   *
  ** 
 *** 
**** 
*****

```

14.

```
class q14{  
    public static void main(String args[]){  
        for(int i =1;i<5;i++){  
            for(int j=1;j<i;j++){  
                System.out.print(" ");  
            }  
            for(int j=5;j>=i;j--){  
                System.out.print("* ");  
            }  
            System.out.println();  
        }  
        for(int i=1;i<=5;i++){  
            for(int j=5;j>i;j--){  
                System.out.print(" ");  
            }  
            for(int j=1;j<=i;j++){  
                System.out.print("* ");  
            }  
            System.out.println();  
        }  
    }  
}
```

Output:

```

C:\java>java q14
* * * * *
 * * * *
  * * *
   * *
    *
   * *
  * * *
 * * * *
* * * * *

```

15.

```

class q15{
    public static void main(String args[])
    {
        for(int i=1;i<=5;i++){
            for(int j=1;j<=i;j++){
                if(j==i||i==5||j==1){
                    System.out.print("*");
                }
                else{
                    System.out.print(" ");
                }
            }
            System.out.println();
        }
    }
}

```

Output:

```

C:\java>java q15
*
**
* *
* *
*****

```

16.

```

class q16{
    public static void main(String args[])

```

```

    {
        for(int i=1;i<=5;i++){
            for(int j=4;j>=i;j--){
                System.out.print(" ");
            }
            for(int j=1;j<=i;j++){
                if(j==i||i==5||j==1){
                    System.out.print("*");
                }
                else{
                    System.out.print(" ");
                }
            }
            System.out.println();
        }
    }
}

```

Output:

```

C:\java>java q16
*
**
* *
* *
*****

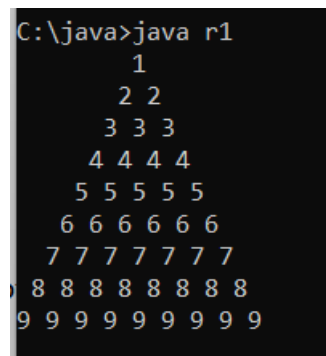
```

Part-3

1.

```
class r1{  
  
    public static void main(String args[]){  
  
        for(int i =1;i<=9;i++){  
  
            for(int j=8;j>=i;j--){  
  
                System.out.print(" ");  
  
            }  
  
            for(int j =1;j<=i;j++){  
  
                System.out.print(i+" ");  
  
            }  
  
            System.out.println();  
  
        }  
  
    }  
  
}
```

Output:



```
C:\java>java r1  
    1  
   2 2  
  3 3 3  
 4 4 4 4  
 5 5 5 5 5  
 6 6 6 6 6 6  
 7 7 7 7 7 7 7  
 8 8 8 8 8 8 8 8  
 9 9 9 9 9 9 9 9 9
```

2.

```

class r2{

    public static void main(String args[]){

        for(int i =1;i<=9;i++){

            for(int j=8;j>=i;j--){

                System.out.print(" ");

            }

            for(int j =1;j<=i;j++){

                System.out.print(j+" ");

            }

            System.out.println();

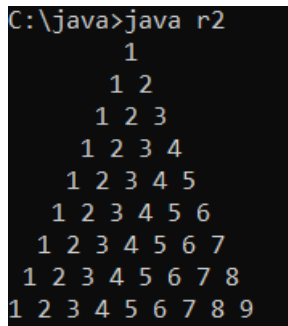
        }

    }

}

```

Output:



```

C:\java>java r2
 1
1 2
1 2 3
1 2 3 4
1 2 3 4 5
1 2 3 4 5 6
1 2 3 4 5 6 7
1 2 3 4 5 6 7 8
1 2 3 4 5 6 7 8 9

```

3.

```

class r3{

    public static void main(String args[]){

        for(int i =1;i<=9;i++){

            for(int j=8;j>=i;j--){


```



```

        System.out.print(" ");

    }

    for(int j =1;j<=i;j++){

        System.out.print("* ");

    }

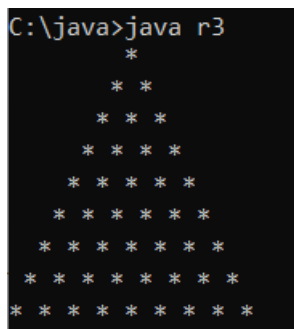
    System.out.println();

}

}

```

Output:



```

C:\java>java r3
  *
 * *
* * *
* * * *
* * * * *
* * * * *
* * * * *
* * * * *
* * * * *

```

4.

```

class r4{

    public static void main(String args[]){

        for(int i =1 ;i<=9;i++)

        {

            for(int j=9;j>i;j--){

                System.out.print(" ");

            }

            for(int j=1;j<=i;j++)

            {

```

```

        System.out.print(j);

    }

    for(int j=i-1;j>=1;j--){

        System.out.print(j);

    }

    System.out.println();

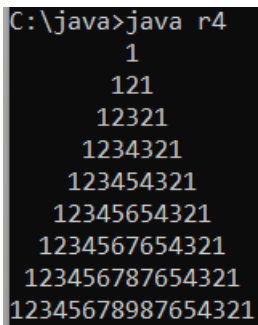
}

}

}

```

Output:



```

C:\java>java r4
1
121
12321
1234321
123454321
12345654321
1234567654321
123456787654321
12345678987654321
12345678987654321

```

5.

```

class r4{

    public static void main(String args[]){

        int c=9;

        for(int i =1 ;i<=9;i++){

            {

                for(int j=1;j<=9;j++){

                    {

                        if(j>=c){

                            System.out.print(j+" ");

                        }

                    }

                }

            }

        }

    }

}

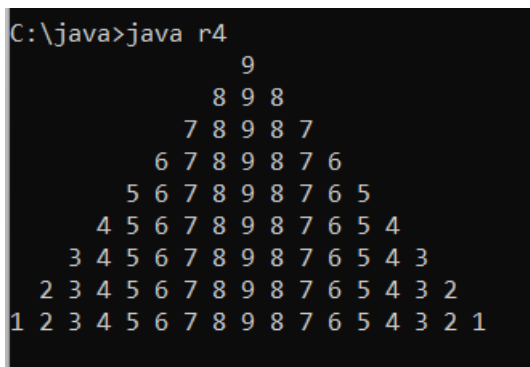
```

```

        }
        else{
            System.out.print(" ");
        }
    }
    for(int j=8;j>=c;j--){
        System.out.print(j+" ");
    }
    c--;
    System.out.println();
}
}
}

```

output:



```

C:\java>java r4
          9
        8 9 8
      7 8 9 8 7
    6 7 8 9 8 7 6
  5 6 7 8 9 8 7 6 5
4 5 6 7 8 9 8 7 6 5 4
3 4 5 6 7 8 9 8 7 6 5 4 3
2 3 4 5 6 7 8 9 8 7 6 5 4 3 2
1 2 3 4 5 6 7 8 9 8 7 6 5 4 3 2 1

```

6.

```

class r6{

    public static void main(String args[]){

        for(int i=1;i<=9;i++){

```

```

        for(int j=1;j<i;j++){
            System.out.print(" ");
        }
        for(int j=9;j>=i;j--){
            System.out.print("* ");
        }
        System.out.println();
    }
}

```

Output:



7.

```

class r7{
    public static void main(String args[]){
        for(int i=1;i<=9;i++){
            for(int j=1;j<i;j++){
                System.out.print(" ");
            }
            for(int j=9;j>=i;j--){
                System.out.print((10-i)+" ");
            }

```

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

```
}
```

```
}
```

```
}
```

Output:

```
C:\java>java r7
9 9 9 9 9 9 9 9
8 8 8 8 8 8 8 8
7 7 7 7 7 7 7
6 6 6 6 6 6
5 5 5 5 5
4 4 4 4
3 3 3
2 2
1
```