① fibonacci series.

input n = 4

output = 3

② matrix addition

$$mat\ 1 = \begin{bmatrix} 1 & 2 \\ 3 & 4 \end{bmatrix}$$

$$mat\ 2 = \begin{bmatrix} 3 & 4 \\ 2 & 1 \end{bmatrix}$$

③ pattern program.

① fibonacci series:-

Aim :- To write a java program for sum of fibona

cci series.

Pseudo code :-

1. Initiallize the variables.

2. Input the values of n.

3. declare the values first-term and second terms are

0, 1 respectively.

4. declare the 'for' loop statement and next term is

equal sum of previous two terms.

5. perform the sum operation.

6. output statement.

Class test - 1

program:-

```
import util java.util.*;

public class fibonacci {

    public static void main (string [ ] args) {

        Scanner input = new Scanner (system.in);

    system.out.print ("enter number of terms: ");

        int n = input.next ont();

        int result = fibonacci(n);

    system.out.println ( result);

    public static int fibonacci (int n) {

        if (n<=1) {

            return n;

        }
        else {
            return fibonacci (n-1) + fibonacci (n-2);

        }
        system.out.println (fibonacci);

    }
}
```

output:-

    n = 4
    result = 33
    f series =

(2) matrix addition :-

Aim :- To write a java program for matrix addition

pseudo code :-

1. Declare the packages of array matrix

2. Input the elements in an array. matrix.

3. declare the 'for' to find the elements sum.

4. Initiallize two 'for' LOOPS 'i' and 'j'.

5. perform addition of matrix using addition operation.

6. ouput statement.

Program :-

```java
import java.util.*;

public class matrixAddition{

        int rows = 2;
        int columns = 2;
        int[][] matrix1 = {
            {1,2}
            {3,4}
        };
        int[][] matrix2 = {
            {

            };

        int[][] summatrix = new int[rows][column];
        for(int i=0; i<rows; i++){
```

```
.   for (i=0; j<columns; j++) {

        sum matrix [i][j] = matrix1 [i][j] + matrix2[i][j];

    }
}

for (i=0; i<rows; i++) {

    for (j=0; j<columns; j++) {

        system.out.println (summatrix[i][j] + " " );

    }
}
        system.out.print( );

}
}
```

3. pattern:-

Aim:- To write a java program for pattern.

program :-

```
import java.util.scanner;
public class pattern{
        pta public static void main (string [] args) {
            scanner input = new scanner (system.in);
            system.out.print("number of rows: ");
            int n = input.nextint();
            int i;
    for (i=1; i<=n; i++) {
        for(j=1; j<=i; j++) {
                print system.out.println (" * ");
    }
            system.out.print( );
}
}
```

output:-

$mat1 = \begin{bmatrix} 1 & 2 \\ 3 & 4 \end{bmatrix}$ $mat2 = \begin{bmatrix} 3 & 4 \\ 2 & 1 \end{bmatrix}$

$sum\ mat = \begin{bmatrix} 4 & 6 \\ 5 & 5 \end{bmatrix}$

output:-

n=4

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