WEEK-2

ROLL NO:230701235

1) You and your friend are movie fans and want to predict if the movie is going to be a hit!

The movie's success formula depends on 2 parameters:

the acting power of the actor (range 0 to 10) the

critic's rating of the movie (range 0 to 10)

The movie is a hit if the acting power is excellent (more than 8) or the rating is excellent (more than 8). This holds true except if either the acting power is poor (less than 2) or rating is poor (less than 2), then the movie is a flop. Otherwise the movie is average.

Write a program that takes 2 integers: the

first integer is the acting power second

integer is the critic's rating.

You have to print Yes if the movie is a hit, Maybe if the movie is average and No if the movie is flop.

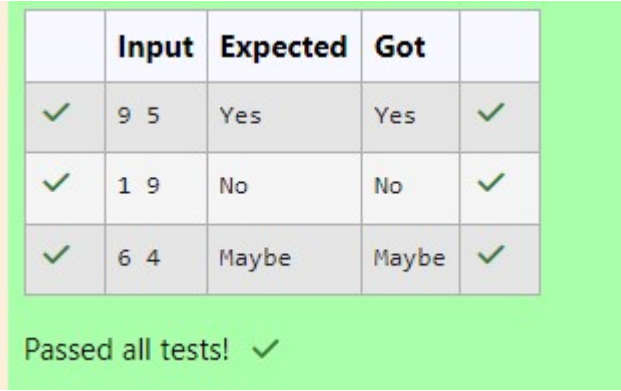
Input	Result
9 5	Yes
1 9	No
6 4	Maybe

CODE:

```
import java.util.*; public class main{

public static void main(String [] args){

int n[]=new int[2];

      Scanner s=new Scanner(System.in);

n[0]=s.nextInt();        n[1]=s.nextInt();


      s.nextLine();

if(n[0]<2||n[1]<2){

         System.out.print("No");
```

```
        }
        else if(n[0]>8 || n[1]>8){
            System.out.print("Yes");


        }
        else{
            System.out.print("Maybe");
        }
    }
}
```

OUTPUT:



	Input	Expected	Got	
✓	9 5	Yes	Yes	✓
✓	1 9	No	No	✓
✓	6 4	Maybe	Maybe	✓

Passed all tests! ✓

2) Write a program that takes as parameter an integer n.

You have to print the number of zeros at the end of the factorial of n.

For example, 3! = 6. The number of zeros are 0. 5! = 120. The number of zeros at the end are 1.

Note: n! < 10^5

For example:

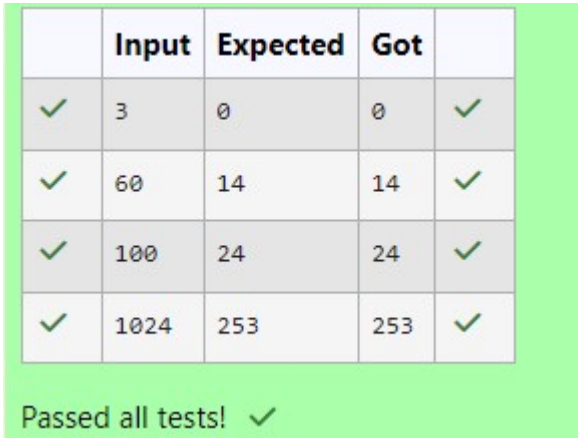
Input	Result
3	0
60	14

Code:

```
// Java program to count trailing 0s in n!
import java.io.*; import
java.util.Scanner; class
prog {
   // Function to return trailing     //
0s in factorial of n     static int
findTrailingZeros(int n)
   {
      if (n < 0) // Negative Number Edge Case
         return -1;

      // Initialize result
int count =0;



      // Keep dividing n by powers
// of 5 and update count
      for (int i = 5; n / i >= 1;i*=5     )
count += n / i;

      return count;
   }

   // Driver Code     public static void
main(String[] args)
   {
int n ;
```

```
        Scanner sc= new Scanner(System.in);
n=sc.nextInt();
        System.out.println(findTrailingZeros(n));
    }
}
```

Output:



	Input	Expected	Got	
✓	3	0	0	✓
✓	60	14	14	✓
✓	100	24	24	✓
✓	1024	253	253	✓

Passed all tests! ✓

3)

Consider a sequence of the form 0, 1, 1, 2, 4, 7, 13, 24, 44, 81, 149…

Write a method program which takes as parameter an integer n and prints the nth term of the above sequence. The nth term will fit in an integer value.

For example:

Input	Result
5	4
8	24
11	149

CODE:

```
import java.util.*;
public class main{ public static int
tribonacciTerm(int n){
   if(n<3)     return n;
int a=0,b=1,c=1,d;
```

```
while(n-->3){
d=a+b+c;        a=b;
b=c;        c=d;
   }
   return c;
}
public static void main(String [] args){
Scanner sc=new Scanner(System.in);
int n=sc.nextInt();     int
ans=tribonacciTerm(n);
   System.out.println(ans);
}
}
```

OUTPUT:

	Input	Expected	Got	
✓	5	4	4	✓
✓	8	24	24	✓
✓	11	149	149	✓

Passed all tests! ✓