Status	Finished
Started	Saturday, 5 October 2024, 6:43 PM
Completed	Monday, 7 October 2024, 6:08 PM
Duration	1 day 23 hours

Question **1**

Correct

Marked out of 5.00

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.

Example Input:

5

Output:

4

Example Input:

8

Output:

24

Example Input:

11

Output:

149

For example:

Input	Result
5	4
8	24
11	149

Answer: (penalty regime: 0 %)

```
import java.util.*;

class prog{
    public static void main(String args[]){
        Scanner s = new Scanner (System.in);
        int n= s.nextInt();
        if (n==0){
            System.out.print(0);
        }
        else if(n==1){
            System.out.print(1);
        }
        else if(n==2){
            System.out.println(1);
        }
        int a=0,b=1,c=1,d;
        int i=0;
        while(i<n-1){
            d=a+b+c;
            a=b;
            b=c;
            c=d;
            i++;
        }
        System.out.println(a);
    }
}
```

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

Passed all tests! ✓

Question **2**

Correct

Marked out of 5.00

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.

Example input:

9 5

Output:

Yes

Example input:

1 9

Output:

No

Example input:

6 4

Output:

Maybe

For example:

Input	Result
9 5	Yes
1 9	No
6 4	Maybe

Answer: (penalty regime: 0 %)

```
import java.util.*;
 class prog{
     public static void main(String agrs[]){
         Scanner s= new Scanner (System.in);
         int p= s.nextInt();
         int r= s.nextInt();
         if ((p>8 || r>8)&&(p>2 && r>2)){
             System.out.println("Yes");
         }
         else if(p<2 || r<2){
             System.out.println("No");
         }
         else{
             System.out.println("Maybe");
         }
     }
 }
```

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

Passed all tests! ✓

Question **3**

Correct

Marked out of 5.00

Consider the following sequence:

1st term: 1

2nd term: 1 2 1

3rd term: 1 2 1 3 1 2 1

4th term: 1 2 1 3 1 2 1 4 1 2 1 3 1 2 1

And so on. Write a program that takes as parameter an integer n and prints the nth terms of this sequence.

Example Input:

1

Output:

1

Example Input:

4

Output:

1 2 1 3 1 2 1 4 1 2 1 3 1 2 1

For example:

Input	Result
1	1
2	1 2 1
3	1 2 1 3 1 2 1
4	1 2 1 3 1 2 1 4 1 2 1 3 1 2 1

Answer: (penalty regime: 0 %)

```
import java.util.Scanner;


public class prog{
    public static void main(String[]args){
        Scanner S = new Scanner(System.in);
        int n = S.nextInt();
        String term = generateTerm(n);
        System.out.print(term);
    }
    private static String generateTerm(int n){
        if (n==1){
            return "1";
        }
        String prevTerm = generateTerm (n-1);
        StringBuilder currentTerm = new StringBuilder(prevTerm);
        currentTerm.append(" " + n + " ");
        currentTerm.append(prevTerm);
        return currentTerm.toString();
    }
}

```

	Input	Expected	Got	
✓	1	1	1	✓
✓	2	1 2 1	1 2 1	✓

	Input	Expected	Got	
✓	3	1 2 1 3 1 2 1	1 2 1 3 1 2 1	✓
✓	4	1 2 1 3 1 2 1 4 1 2 1 3 1 2 1	1 2 1 3 1 2 1 4 1 2 1 3 1 2 1	✓

Passed all tests! ✓

◄ Lab-02-MCQ

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