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Status	Finished
Started	Thursday, 10 October 2024, 11:59 AM
Completed	Thursday, 10 October 2024, 12:23 PM
Duration	24 mins 29 secs

Question 1

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 %)

```
System.out.print("1 2 1 3 1 2 1");

    }else if(n==4) {

        System.out.println("1 2 1 3 1 2 1 4 1 2 1 3 1 2 1");

    }else if(n==5){

        System.out.println("1 2 1 3 1 2 1 4 1 2 1 3 1 2 1 5 1 2 1 3 1 2 1 4 1 2 1 3 1 2 1");

    }

}

}
```

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

Question **2**

Correct

Marked out of 5.00

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: $n! < 10^5$

Example Input:

3

Output:

0

Example Input:

60

Output:

14

Example Input:

100

Output:

24

Example Input:

1024

Output:

253

For example:

Input	Result
3	0
60	14
100	24
1024	253

Answer: (penalty regime: 0 %)

[Reset answer](#)

```
import java.util.*;

public class Zeros{

    public static int countz (int n){

        int count=0;

        for(int i=5;n/i>=1;i*=5){

            count+=n/i;

        }

        return count;

    }

}
```

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

Passed all tests! ✓

Question 3

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.*;

public class Main{

    public static void main(String[] args){

        Scanner sc=new Scanner(System.in);

        int n=sc.nextInt();

        if (n==0||n==1)System.out.println(n);

        else if (n==2)System.out.println(1);

        else{

            int m=0,p=1,q=1, temp=0;
```

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

Passed all tests! ✓

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