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Status	Finished
Started	Friday, 20 September 2024, 8:28 PM
Completed	Friday, 20 September 2024, 9:39 PM
Duration	1 hour 10 mins

Question **1**

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

```java
1  // Java program to count trailing 0s in n!
2  import java.io.*;
3  import java.util.Scanner;
4  class prog {
5      // Function to return trailing
6      // 0s in factorial of n
7      static int findTrailingZeros(int n)
8      {
9          if (n < 0) // Negative Number Edge Case
10             return -1;
11
12         int count =0;
13
14
15         // Keep dividing n by powers
16         // of 5 and update count
```

```
16                // of 5 and update count
17                for (int i = 5; n / i >= 1; i*=5  )
18                    count += n / i;
19
20                return count;
21            }
22
23            // Driver Code
24            public static void main(String[] args)
25            {
26                int n ;
27                Scanner sc= new Scanner(System.in);
28                n=sc.nextInt();
29                int m=findTrailingZeros(n);
30                System.out.println(m);
31            }
32        }
```

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

Passed all tests! ✓

Question **2**

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 %)

```java
 1  import java.util.Scanner;
 2  public class pattern{
 3      public static String generate(int n){
 4          if(n==1)
 5          return "1";
 6          String p=generate(n-1);
 7          return p+" "+n+" "+r(p);
 8      }
 9      public static String r(String t){
10          String[] e=t.split(" ");
11          StringBuilder r=new StringBuilder();
12          for(int i=e.length-1;i>=0;i--){
13              r.append(e[i]);
14              if(i!=0)
15              r.append(" ");
16          }
17          return r.toString();
18      }
19      public static void main(String[] args){
20          Scanner s=new Scanner(System.in);
21          int n=s.nextInt();
22          System.out.print(generate(n));
23
24      }
25
26  }
```

	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 **3**

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 %)

```java
1  import java.util.Scanner;
2  public class rating{
3      public static String find(int a,int b){
4          if(a<2 || b<2)
5          return "No";
6          else if(a>8||b>8)
7          return "Yes";
8          return "Maybe";
9
10     }
11     public static void main(String[] args){
12         Scanner s=new Scanner(System.in);
13         int n=s.nextInt();
14         int m=s.nextInt();
15         System.out.print(find(n,m));
```

```
16  |      }
17  |}
```

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

Passed all tests! ✓

◄ Lab-02-MCQ

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