

[Dashboard](#) / [My courses](#) / [CS23333-OOPJ-2023](#) / [Lab-02-Flow Control Statements](#) / [Lab-02-Logic Building](#)

| | |
|------------------|-----------------------------------|
| Status | Finished |
| Started | Saturday, 5 October 2024, 1:33 PM |
| Completed | Saturday, 5 October 2024, 2:57 PM |
| Duration | 1 hour 24 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

```
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         // Initialize result
15
16
17         // Keep dividing n by powers
18         // of 5 and update count
19         for (int i = 5; n / i >= 1; i*=5 )
20             count += n / i;
21
22         return count;
23     }
```

```
24
25 // Driver Code
26 public static void main(String[] args)
27 {
28     int n ;
29     Scanner sc= new Scanner(System.in);
30     n=sc.nextInt();
31     int m=findTrailingZeros(n);
32     System.out.println(m);
33 }
34
35
```

| | 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 %)

```

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 }
```

| | Input | Expected | Got | |
|---|-------|----------|-----|---|
| ✓ | 1 | 1 | 1 | ✓ |

| | Input | Expected | Got | |
|---|-------|-------------------------------|-------------------------------|---|
| ✓ | 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 have recently seen a motivational sports movie and want to start exercising regularly. Your coach tells you that it is important to get up early in the morning to exercise. She sets up a schedule for you:

On weekdays (Monday - Friday), you have to get up at 5:00. On weekends (Saturday & Sunday), you can wake up at 6:00. However, if you are on vacation, then you can get up at 7:00 on weekdays and 9:00 on weekends.

Write a program to print the time you should get up.

Input Format

Input containing an integer and a boolean value.

The integer tells you the day it is (1-Sunday, 2-Monday, 3-Tuesday, 4-Wednesday, 5-Thursday, 6-Friday, 7-Saturday). The boolean is true if you are on vacation and false if you're not on vacation.

You have to print the time you should get up.

Example Input:

1 false

Output:

6:00

Example Input:

5 false

Output:

5:00

Example Input:

1 true

Output:

9:00

For example:

| Input | Result |
|---------|--------|
| 1 false | 6:00 |
| 5 false | 5:00 |
| 1 true | 9:00 |

Answer: (penalty regime: 0 %)

```

1 import java.util.Scanner;
2 public class Time{
3     public static void main(String[] args)
4     {
5         Scanner s = new Scanner(System.in);
6         int n = s.nextInt();
7         Boolean a = s.nextBoolean();
8         if(n>=2 && n<=6)
9         {
10             if(a){
11                 System.out.print("7:00");
12             }
13             else{
14                 System.out.print("5:00");
15             }
16         }
17         else
18         {
19             if(a){
20                 System.out.print("9:00");
21             }
22             else
23             {

```

```
24 |
25 |         }
26 |
27 |     }
28 | }
29 | }
```

```
system.out.print("6:00");
```

| | Input | Expected | Got | |
|---|---------|----------|------|---|
| ✓ | 1 false | 6:00 | 6:00 | ✓ |
| ✓ | 5 false | 5:00 | 5:00 | ✓ |
| ✓ | 1 true | 9:00 | 9:00 | ✓ |

Passed all tests! ✓

[◀ Lab-02-MCQ](#)

Jump to...

[Lab-03-MCQ ▶](#)

