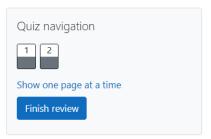
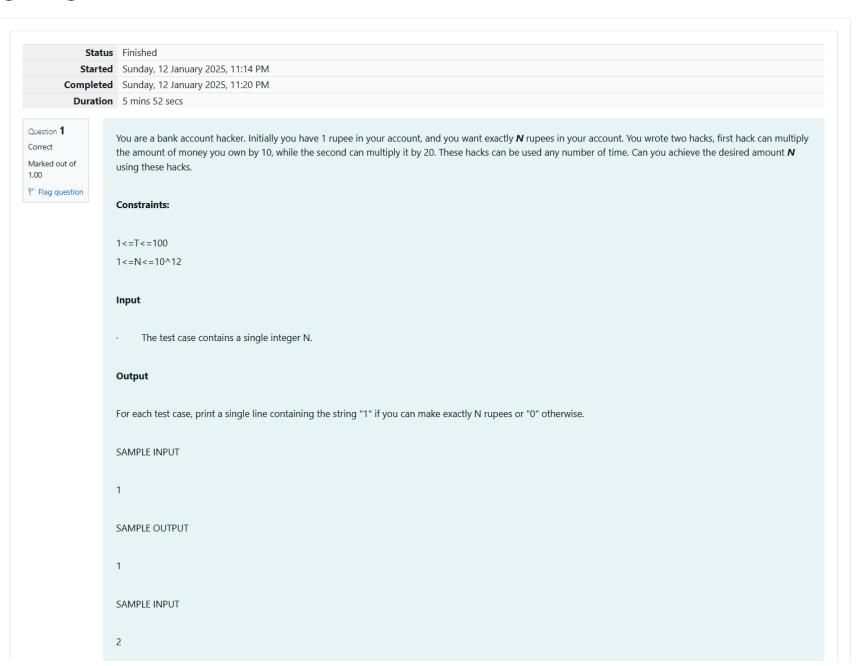
MUTHURAM 240901062

GE23131-Programming Using C-2024





SAMPLE OUTPUT MUTHURAM 240901062

0

Answer: (penalty regime: 0 %)

Reset answer

```
1 - /*
2
    * Complete the 'myFunc' function below.
3
4
    * The function is expected to return an INTEGER.
    * The function accepts INTEGER n as parameter.
5
6
7 #include<stdio.h>
8 int myFunc(int n)
9 + {
10
      if(n==1)
11 🔻
    return 1;
12
13
14
     if(n%10==0)
15 🔻
16
      if(myFunc(n/10))
17
18
         return 1;
19
20
      if(n%20==0)
21
22 🔻
23
         if(myFunc(n/20))
24
25
          return 1;
26
27
28
      return 0;
29 }
30
31
```

	Test	Expected	Got	
~	<pre>printf("%d", myFunc(1))</pre>	1	1	~
~	printf("%d", myFunc(2))	0	0	~
~	printf("%d", myFunc(10))	1	1	~
~	printf("%d", myFunc(25))	0	0	~
~	printf("%d", myFunc(200))	1	1	~

Passed all tests! <

Question **2**Correct
Marked out of 1.00

F Flag question

Find the number of ways that a given integer, X, can be expressed as the sum of the Nth powers of unique, natural numbers.

For example, if X = 13 and N = 2, we have to find all combinations of unique squares adding up to 13. The only solution is $2^2 + 3^2$.

Function Description

Complete the powerSum function in the editor below. It should return an integer that represents the number of possible combinations.

powerSum has the following parameter(s):

X: the integer to sum to

N: the integer power to raise numbers to

Input Format

The first line contains an integer X.

The second line contains an integer N.

Constraints

 $1 \le X \le 1000$

 $2 \le N \le 10$

Output Format

Output a single integer, the number of possible combinations calculated.

Sample Input 0

10

2

Sample Output 0

Explanation 0

$$10 = 1^2 + 3^2$$

This is the only way in which 10 can be expressed as the sum of unique squares.

Sample Input 1

100

2

Sample Output 1

3

Explanation 1

$$100 = (10^2) = (6^2 + 8^2) = (1^2 + 3^2 + 4^2 + 5^2 + 7^2)$$

Sample Input 2

100

3

Sample Output 2

Explanation 2

100 can be expressed as the sum of the cubes of 1, 2, 3, 4.

(1 + 8 + 27 + 64 = 100). There is no other way to express 100 as the sum of cubes.

Answer: (penalty regime: 0 %)

Reset answer

- 1 . /
- 2 * Complete the 'powerSum' function below.

```
\ensuremath{^{*}} The function is expected to return an INTEGER.
 4
5
     * The function accepts following parameters:
6
     * 1. INTEGER x
7
     * 2. INTEGER n
8
     #include<stdio.h>
9
     #include<math.h>
10
11
12 int powerSum(int x, int m, int n)
13 ₹ {
14
        if(x==0)
        return 1;
if(x<0 ||pow(m,n)>x)
15
16
17
        return 0;
18
        return powerSum(x-pow(m,n),m+1,n)+powerSum(x,m+1,n);
19 }
20
```

	Test	Expected	Got	
~	printf("%d", powerSum(10, 1, 2))	1	1	~

Passed all tests! 🗸

Finish review