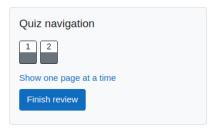
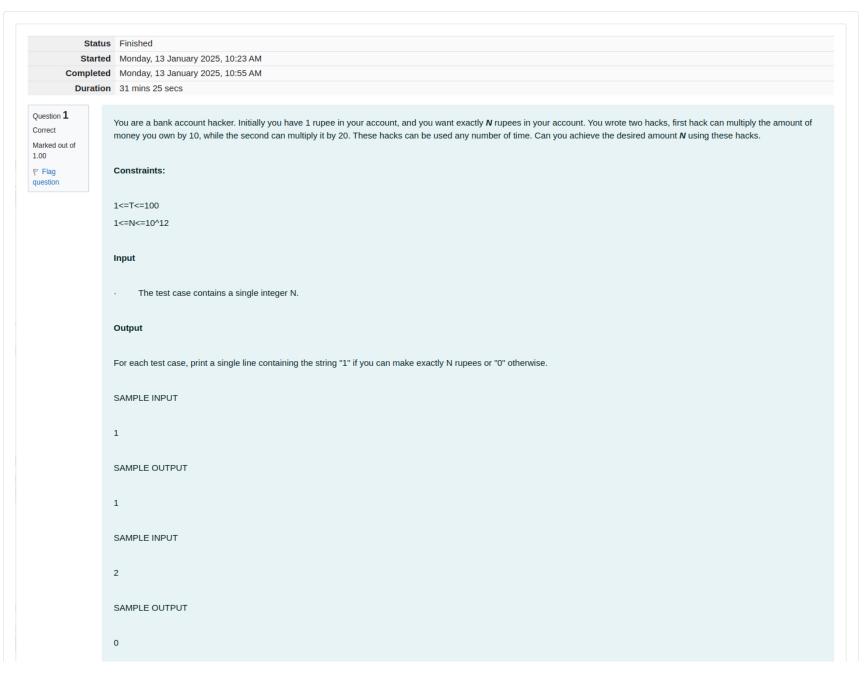
GE23131-Programming Using C-2024





Answer: (penalty regime: 0 %)

```
Reset answer
```

```
2 v /* The function accepts INTEGER n as para
4 */
6 v int myFunc(int n) {
8 // If n is less than 1, it's impossib
10 v if (n <= 0) {
11
12 return 0;
13
14 }
15
16 // Working backwards from n to 1 by
17
18 v while (n > 1) {
19
20 // If divisible by 20, divide by
21 v if (n % 20 == 0) {
22
23 n /= 20;
24
25 }
26
27 // If divisible by 10, divide by
28
29 v else if (n % 10 == 0) {
30
31 n /= 10;
32
33 }
34
35 // If not divisible by either 10
36
37 v else {
38
39 return 0;
40
41
42
43
44
45 // If we reached exactly 1, it's poss
46 return (n == 1);
47
48 }
```

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

✓ printf("%a", my+unc(2⊎⊎)) 1 1 ✓						
Passed all tests! ✓						
Find the number of ways that a given integer, X , can be expressed as the sum of the N th 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 <i>X</i> .						
The second line contains an integer N .						
Constraints						
1 ≤ X ≤ 1000						
2≤N≤10						
Output Format						
Output a single integer, the number of possible combinations calculated.						
Sample Input 0						
10						
2						
Sample Output 0						
1						
Explanation 0						

Question 2
Correct
Marked out of 1.00

Frag
Guestion

```
If X = 10 and N = 2, we need to find the number of ways that 10 can be represented as the sum of squares of unique numbers.
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
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
Sample Output 2
1
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
         Complete the 'powerSum' function below
   4
   5
        * The function is expected to return an
```

```
9
      * The function accepts following paramet
 10
11
12
     * 1. INTEGER X
13
14
 15 2. INTEGER n
 16
17 */
18
 19 #include <stdio.h>
20
21 #include <math.h>
22
23 v int powerSum(int x, int m, int n) {
24
25 if (x == 0)
27 return 1;
 28
29 if (x < 0 || pow(m, n) > x)
30
31 return 0;
32
return powerSum(x - pow(m, n), m + 1, n) + powerSum(x, m + 1, n);

34
35 }
```

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

Passed all tests! 🗸

inish review