## GE23131-Programming Using C-2024





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Status Finished Started Monday, 13 January 2025, 10:23 AM Completed Monday, 13 January 2025, 10:30 AM **Duration** 6 mins 57 secs

Ouestion 1 Correct

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Constraints:

1<=T<=100

1<=N<=10^12

Input

The test case contains a single integer N.

You are a bank account hacker. Initially you have 1 rupee in your account, and you want exactly N rupees in your account.

You wrote two hacks, first hack can multiply the amount of money you own by 10, while the second can multiply it by 20.

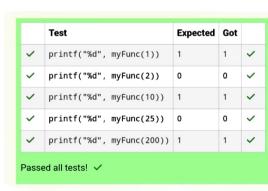
These hacks can be used any number of time. Can you achieve the desired amount N using these hacks.

Output

REC-CIS	
	For each test case, print a single line containing the string "1" if you can make exactly N rupees or "0" otherwise.
	SAMPLE INPUT
	1
	SAMPLE OUTPUT
	1
	SAMPLE INPUT
	2
	SAMPLE OUTPUT
	0
	Answer: (penalty regime: 0 %)
	Reset answer  1
	2 * Complete the 'myEunc' function below

```
Reset answer
     * Complete the 'myFunc' function below.
     * The function is expected to return an INTEGER.
     * The function accepts INTEGER n as parameter.
    #include<stdio.h>
     int myFunc(int n)
 9 ▼ {
        if(n==1)
10
11 ▼
12
             return 1;
13
        if(n%10==0)
14
15 ▼
16
             if(myFunc(n/10))
17 ▼
18
                 return 1;
19
20
21
        if(n%20==0)
22 ▼
23
             if(myFunc(n/20))
24 ▼
25
                 return 1;
26
27
28
        return 0;
29
30
```

```
15 ₩
            if(myFunc(n/10))
16
17 ₩
18
                return 1;
19
20
21
        if(n%20==0)
22 ₩
23
            if(myFunc(n/20))
24 ₩
25
                return 1;
26
27
        return 0;
29
30
```





Ouestion 2

Find the number of ways that a given integer, **X**, can be expressed as the sum of the **N**<sup>th</sup> 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):

The first line contains an integer **X**.

The second line contains an integer **N**.

N: the integer power to raise numbers to

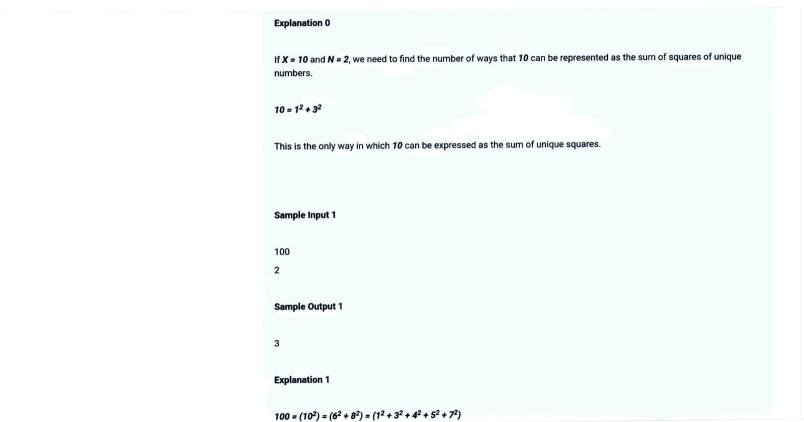
X: the integer to sum to

Constraints

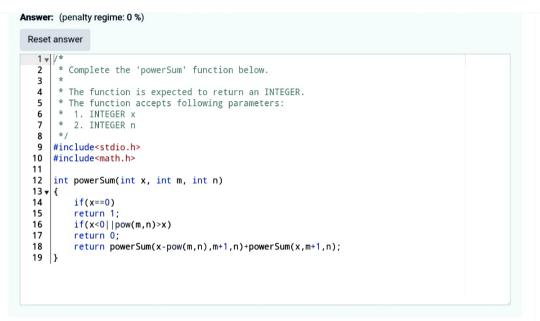
Input Format

1 ≤ X ≤ 1000

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
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.



REC-CIS 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 %)



	Test	Expected	Got	
~	<pre>printf("%d", powerSum(10, 1, 2))</pre>	1	1	~