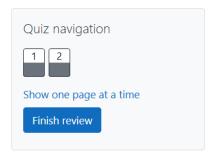
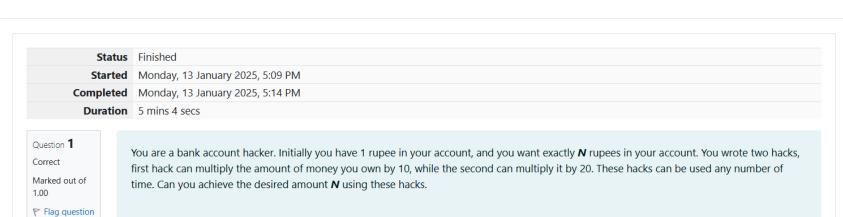
## GE23131-Programming Using C-2024





#### **Constraints:**

1<=T<=100

1<=N<=10^12

#### Input

· The test case contains a single integer N.

#### Output

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
Answer: (penalty regime: 0 %)
  Reset answer
   2
         * Complete the 'myFunc' function below.
    3
         * The function is expected to return an INTEGER.

* The function accepts INTEGER n as parameter.
    5
    6
    7
        int myFunc(int n)
    8
    9 ₹
            return n==1||n%10==0;
   10
   11 }
   12
```

	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	~

0

Question **2**Correct
Marked out of 1.00

Flag question

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):

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 1 Explanation 0 $10 = 1^2 + 3^2$ Sample Input 1

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.

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

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
```

```
* Complete the 'powerSum' function below.
 2
 3
     * The function is expected to return an INTEGER.
    * The function accepts following parameters:
 5
     * 1. INTEGER x
 6
 7
     * 2. INTEGER n
 8
    #include<math.h>
10
    int powerSum(int x, int m, int n)
11 * {
12
       int p=pow(m,n);
13 🔻
       if(p==x){
       return 1;
14
15
16 •
       if(p>x){
       return 0;
17
18
19
        return powerSum(x-p,m+1,n)+powerSum(x,m+1,n);
20 }
```

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

Passed all tests! <

Finish review