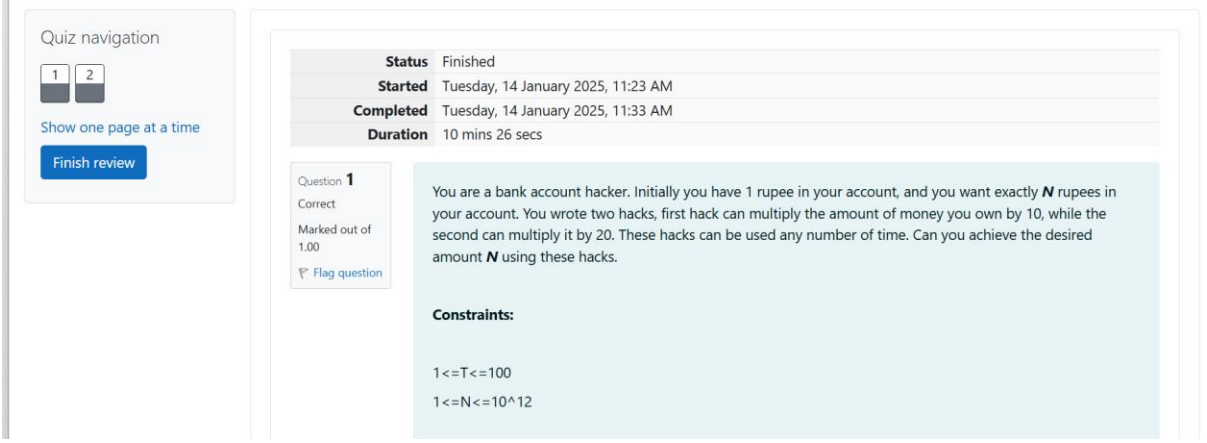
GE23131-Programming Using C-2024



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

0

Answer: (penalty regime: 0 %)

Reset answer

```
int myFunc(int n)
{
    if(n==1)
    {
        return 1;
    }
    if(n<1)
    {
        return 0;
    }
    if(n%10==0&& myFunc(n/10))
    {
        return 1;
    }
    if(n%20==0&& myFunc(n/20))
    {
        return 1;
    }
    return 0;
}
```

	Test	Expected	Got	
✓	printf("%d", myFunc(1))	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

Find the number of ways that a given integer, ***X***, can be expressed as the sum of the N^{th} powers of unique,

Correct

Marked out of 1.00

Flag question

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 ≤ 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.

$10 = 1^2 + 3^2$

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

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

```c
#include<math.h>
int powerSum(int x,int m,int n)
{
    int power=pow(m,n);
    if(power>x)
    {
        return 0;
    }
    if(power==x)
    {
        return 1;
    }
    return powerSum(x-power,m+1,n)+powerSum(x,m+1,n);
}
```

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

Passed all tests! ✓

Finish review