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Sum

Problem Code: CHIN000

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Yesterday, puppy Tuzik learned a magically efficient method to find the sum of the integers from 1 to N. He denotes it as sum(N). But today, as a true explorer, he defined his own new function: sum(D, N), which means the operation sum applied D times: the first time to N, and each subsequent time to the result of the previous operation.

Tuzik wants to calculate some values of the sum(D, N) function. Will you help him with that?

### Input:

The first line contains a single integer T, the number of test cases. Each test case is described by a single line containing two integers D and N.

### **Output:**

For each testcase, output one integer on a separate line.

# **Constraints**

- $1 \le T \le 100$
- $1 \le D, N \le 14$

### Sample Input:

1 4

2 3

### **Sample Output:**

10

21

# **EXPLANATION:**

This list is: The first test case: sum(1, 4) = sum(4) = 1 + 2 + 3 + 4 = 10.

The second test case: sum(2, 3) = sum(sum(3)) = sum(1 + 2 + 3) = sum(6) = 1 + 2+3+4+5+6=21.

Author: 2\* qvtsdbsfhnvcx (/users/qvtsdbsfhnvcx)

Date Added: 13-09-2019

Time Limit: 0.2 secs

Source Limit: 50000 Bytes

Languages: C, CPP14, JAVA, PYTH, PYTH 3.6, PYPY, CS2, PAS fpc, PAS

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#### CodeChef (http://www.codechef.com) - A Platform for Aspiring Programmers

CodeChef was created as a platform to help programmers make it big in the world of algorithms, **computer programming** and **programming contests**. At CodeChef we work hard to revive the geek in you by hosting a **programming contest** at the start of the month and another smaller programming challenge in the middle of the month. We also aim to have training sessions and discussions related to **algorithms**, **binary search**, technicalities like **array size** and the likes. Apart from providing a platform for **programming competitions**, CodeChef also has various algorithm tutorials and forum discussions to help those who are new to the world of **computer programming**.

# <u>Practice Section (https://www.codechef.com/problems/easy)</u> - A Place to hone your 'Computer Programming Skills'

Try your hand at one of our many practice problems and submit your solution in a language of your choice. Our **programming contest** judge accepts solutions in over 35+ programming languages. Preparing for coding contests were never this much fun! Receive points, and move up through the CodeChef ranks. Use our practice section to better prepare yourself for the multiple **programming challenges** that take place through-out the month on CodeChef.

#### Compete (https://www.codechef.com/problems/easy) - Monthly Programming Contests and Cook-offs

Here is where you can show off your **computer programming skills**. Take part in our 10 day long monthly coding contest and the shorter format Cook-off **coding contest**. Put yourself up for recognition and win great prizes. Our **programming contests** have prizes worth up to INR 20,000 (for Indian Community), \$700 (for Global Community) and lots more CodeChef goodies up for grabs.

#### **Programming Tools**

Online IDE (https://www.codechef.com/ide)

<u>Upcoming Coding Contests (http://www.codechef.com/contests#FutureContests)</u>

Contest Hosting (http://www.codechef.com/hostyourcontest)

<u>Problem Setting (http://www.codechef.com/problemsetting)</u>

<u>CodeChef Tutorials (http://www.codechef.com/wiki/tutorials)</u>

CodeChef Wiki (https://www.codechef.com/wiki)

# <u>Initiatives</u>

Go for Gold (http://www.codechef.com/goforgold)

<u>CodeChef for Schools (http://www.codechef.com/school)</u>

Campus Chapters (http://www.codechef.com/campus\_chapter/about)

#### Practice Problems

Easy (https://www.codechef.com/problems/easy)

Medium (https://www.codechef.com/problems/medium)

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