|  |  |
| --- | --- |
| *4th IIUC Inter-University Programming Contest, 2005* | |
| **F** | **Marks Distribution** |
| **Input: standard input**  **Output: standard output** |
| **Problemsetter: Md. Bahlul Haider**  **Judge Solution: Tanveer Ahsan** |

In an examination one student appeared in **N** subjects and has got total **T** marks. He has passed in all the **N** subjects where minimum mark for passing in each subject is **P**. You have to calculate the number of ways the student can get the marks. For example, if **N=3**, **T=34** and **P=10** then the marks in the three subject could be as follows.

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Subject 1** | **Subject 2** | **Subject 3** |
| 1 | 14 | 10 | 10 |
| 2 | 13 | 11 | 10 |
| 3 | 13 | 10 | 11 |
| 4 | 12 | 11 | 11 |
| 5 | 12 | 10 | 12 |
| 6 | 11 | 11 | 12 |
| 7 | 11 | 10 | 13 |
| 8 | 10 | 11 | 13 |
| 9 | 10 | 10 | 14 |
| 10 | 11 | 12 | 11 |
| 11 | 10 | 12 | 12 |
| 12 | 12 | 12 | 10 |
| 13 | 10 | 13 | 11 |
| 14 | 11 | 13 | 10 |
| 15 | 10 | 14 | 10 |

So there are 15 solutions. So **F (3, 34, 10) = 15**.

**Input**

In the first line of the input there will be a single positive integer **K** followed by **K** lines each containing a single test case. Each test case contains three positive integers denoting **N**, **T** and **P** respectively. The values of **N**, **T** and **P** will be at most 70. You may assume that the final answer will fit in a standard 32-bit integer.

**Output**

For each input, print in a line the value of **F (N, T, P)**.

|  |  |
| --- | --- |
| **Sample Input** | **Output for Sample Input** |
| **2**  **3 34 10**  **3 34 10** | **15**  **15** |