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 $1 \leq N \leq 70$, $1 \leq P \leq T \leq 70$. 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

```
2
3 34 10
3 34 10
```

Sample Output

```
15
15
```