

There is a queue with N people. Every person has a different height. We can see P people, when we are looking from the beginning, and R people, when we are looking from the end. Its because they are having different height and they are covering each other. How many different permutations of our queue has such a interesting feature?

Input

The input consists of T test cases. The number of them ($1 \leq T \leq 10000$) is given on the first line of the input file.

Each test case begins with a line containing a single integer number N that indicates the number of people in a queue ($1 \leq N \leq 13$). Then follows line containing two integers. The first integer corresponds to the number of people, that we can see looking from the beginning. The second integer corresponds to the number of people, that we can see looking from the end.

Output

For every test case your program has to determine one integer. Print how many permutations of N people we can see exactly P people from the beginning, and R people, when we are looking from the end.

Sample Input

```
3
10 4 4
11 3 1
3 1 2
```

Sample Output

```
90720
1026576
1
```