Scammer Shamal

Shamal is a cricket board manager for equipment. He has N red cricket balls and M white cricket balls. According to the guidelines he must distribute them among the players in the team. There are K players in the team (it can be more than 11). There are S senior players in the team, and are aware of the possibility of scams can happen when distributing equipment and they carefully check what is being provided to them and what is logged in their name in the documents, but newbies aren't. Shamal plans to distribute 1 ball to each player while logging as a number of new players get 2 red balls and b number of new players get 2 white balls. Use your criminal brain to find how many different ways Shamal can distribute balls as per his plan.

Input Format

Input will be given as follows;

First line T : Number of test cases.

Next T lines, **four** space separated integers : **K S a b**

Constraints

- M, N enough to distribute among the players
- $11 < K < 500$
- $1 < S < K$
- $1 < a, b < K$

Output Format

Output should be T lines with integer values representing the number of different scamming ways in each line.

Sample Input 0

```
3
11 4 2 2
25 10 6 3
20 12 4 2
```

Sample Output 0

```
210
420420
420
```