

Infinite Possibility

BALLS

Mr. Peeyush is in a game store, with infinite amount of balls. He wants to buy 'p' balls. In the shop there are balls of 'q' different colours and for each colour there are infinite balls and he has to select atleast one ball from each colour set. There are many possibilities for his selection of 'p' balls and he is not good in maths so he needs your help. Now you have to find the total number of possibilities for his selection.

Input

First line of input contains the number of test cases $T \leq 100$. and each line consists two variables p and q.

p-> Number of balls he want to buy

q-> Number of different colours of balls in the store.

$1 \leq q \leq p \leq 1000000$.

Output

For each testcase you have to print the number of possibilities that the man would have. you can assume that answer fits in to unsigned 64-bit integer.

EXAMPLE:

Input:

```
3
3 2
7 3
23 13
```

Output:

```
2
15
646646
```