

Little Kevin had never heard the word 'Infinitum'. So he asked his mentor to explain the word to him. His mentor knew that 'Infinitum' is a very large number. To show him how big [Infinitum](#) can be, his mentor gave him a challenge: to sum the numbers from 1 up to  $N$ . The sum started to get really large and was out of `long long int` range. And so the lesson was clear.

Now his mentor introduced him to the concept of *mod* and asked him to retain only the remainder instead of the big number. And then, he gave him a formula to compute:

$$\sum_{i=1}^N (i \% m)$$

**Input Format**

The first line contains  $T$ , the number of test cases.  
 $T$  lines follow, each containing 2 space separated integers  $N$   $m$

**Output Format**

Print the result on new line corresponding to each test case.

**Constraint**

- $1 \leq T \leq 1000$
- $1 \leq N \leq 10^9$
- $1 \leq m \leq 10^9$

**Sample Input**

```
3
10 5
10 3
5 5
```

**Sample Output**

```
20
10
10
```

**Explanation**

Case 1:  $N = 10$   $m = 5$ ,  
 $1\%5 + 2\%5 + 3\%5 + 4\%5 + 5\%5 + 6\%5 + 7\%5 + 8\%5 + 9\%5 + 10\%5 = 20$ .  
Similar explanation follows for Case 2 and 3.