

Ailin is a girl who likes numbers. This time she learned to calculate the sum of the divisors of a number. Her father, realizing she learns very fast, decides to ask her a more interesting version of that problem: Calculates the sum of the divisors of N which are not multiples of K .

Input

The first line contains a integer T , the number of cases ($1 \leq T \leq 10^5$). Each of the following lines T contains two integers N and K ($1 \leq N, K \leq 5 \cdot 10^5$).

Output

The output will contain T lines, each with the expected answer with the sum of divisors.

Sample Input

```
5
20 2
10 1
20 5
7 5
20 40
```

Sample Output

```
6
0
7
8
42
```