13131 Divisors

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 $(1 \le T \le 10^5)$. Each of the following lines T contains two integers N and K $(1 \le N, K \le 5*10^5)$.

Output

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

Sample Input

Sample Output