



Problem D. Divisors

Input: Standard

Output: Standard

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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 ($1 \leq N, K \leq 5 * 10^5$).

Output

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

Example

Input	Output
5	6
20 2	0
10 1	7
20 5	8
7 5	42
20 40	

Use fast I/O methods