Enough of GoT

Given two integers N and P you need to find the sum of all positive integers less than or equal to N which have no divisor smaller than or equal to P apart from 1.

Input

The first contains one integer T - denoting the number of test cases. T lines follow each containing two space separated integer N and P.

Output

For each test case output the required sum in a new line.

Constraints:

T <= 10 2 <= P <= N <= 2,000,000,000

Sample Input:

Sample Output:

11 0 3

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