

← Round G 2019 - Kick Start 2019

Time remaining

02:58:26



Book Reading (10pts, 15pts)

Competitive Submissions

You have not attempted this problem.

Last updated: Oct 19 2019, 14:30

Problem

Supervin is a librarian handling an ancient book with N pages, numbered from 1 to N . Since the book is too old, unfortunately M pages are torn out: page number P_1, P_2, \dots, P_M .

Today, there are Q lazy readers who are interested in reading the ancient book. Since they are lazy, each reader will not necessarily read all the pages. Instead, the i -th reader will only read the pages that are numbered multiples of R_i and not torn out. Supervin would like to know the sum of the number of pages read by each reader.

Input

The first line of the input gives the number of test cases, T . T test cases follow. Each test case begins with a line containing the three integers N , M , and Q , the number of pages in the book, the number of torn out pages in the book, and the number of readers, respectively. The second line contains M integers, the i -th of which is P_i . The third line contains Q integers, the i -th of which is R_i .

Output

For each test case, output one line containing Case $\#x$: y , where x is the test

case number (starting from 1) and y is the total number of pages that will be