Problem E. GCD vs LCM

Input file:	*standard input*
Output file:	*standard output*
Time limit:	2 seconds
Memory limit:	512 mebibytes

bobo is good at GCD (greatest common divisor) and LCM (least common multiple).

But today he gets stuck in summing up $\text{lcm}(i, j)$ for all $1 \le i \le n, 1 \le j \le m$ with $\gcd(i, j) \le a$, modulo $(10^9 + 7)$.

Input

The first line contains an integer q, which denotes the number of questions ($1 \le q \le 10^4$).

Each of the following q lines contains 3 integers n, m, a, as described in the statement ($1 \le n, m, a \le 10^5$).

Output

For each question, print a single integer denoting the sum.

Examples

standard input	standard output
2 2 2 1 3 4 2	5 45