Problem G
Long-haired man's music festival

Time limit: **3 seconds**

Memory limit: **1024 megabytes**

Problem Description

A long-haired man named Yu-Chen was at a music festival when he suddenly heard the singer chanting the mysterious formula: "$((a + b) + (a - b) + (a \times b) + (a/b))\%(a\%b)$".

He felt that there might be some hidden meaning behind it, so he decided to write a program to compute the result.

Your task is to help him evaluate this formula for given integers a and b.

Input Format

Your program is to read from standard input. The input consists of T test cases.

The first line contains the integer T.

Each of the following T lines contains two integers a and b.

Output Format

Your program is to write to standard output. For each test case, output the computed value of the formula as a single integer in one line.

Technical Specification

- $1 \le T \le 1,000$

- $-1,000,000 \le a, b \le 1,000,000$

- $b \ne 0$

- $a\%b \ne 0$

- All input values are integers.

- Division (a/b) and modulo ($a\%b$) are integer operations as in Java.

Sample Input 1

```
2
542361 1042
15400 176
```

Sample Output 1

```
520
87
```

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