1046 - Product Subsequence

Description

Consider a sequence of 10^3 integers, where for each position **1 <= N <= 10^3** in the sequence corresponds a number given by: **(N)*(N+1)*(N+2)**. Then the sum of the first **1 <= M <= 10^3** sequence numbers can be expressed as follows: **S = 1*2*3 + 2*3*4 + ... + (M-1)*(M)*(M+1) + (M)*(M+1)*(M+2)**. Consider the interval of integers **[a,b]** with **(1 <= a <= b <= 10^3)**. Can you determine the sum of all the sequence numbers between **a** and **b**, they also included?

Input specification

An integer **T** with the number of cases in the first line of input. Each case consists of a line with two integers **a** and **b**, representing the extremes of the interval.

Output specification

One line for each case, with the sum of all the sequence numbers between **a** and **b** mod **100**.

Sample input

```
3
1 10
30 30
1 1000
```

Sample output

```
90
60
0
```

Hint(s)

Source	XXIII Copa Void de Programación - Yonny Mondelo Hernández
Added by	**ejaltuna**
Addition date	2011-10-12 23:03:58.0
Time limit (ms)	1000

Test limit (ms)	1000
Memory limit (kb)	131072
Output limit (mb)	64
Size limit (bytes)	100000
Enabled languages	C C# C++ Java Pascal Perl PHP Python Ruby Text