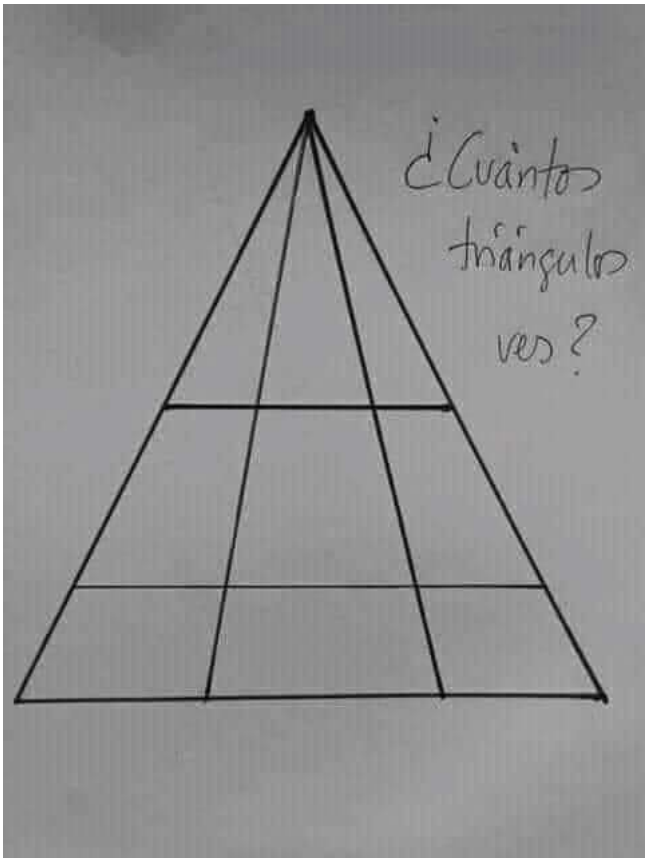
Counting triangles

Input file:	`standard input`
Output file:	`standard output`
Time limit:	1 second
Memory limit:	256 megabytes

Can you find how many triangles are in the following drawing?



Your task is to count the number of triangles in a drawing similar to the one above, where the outer triangle has N lines inside it going from the top to the base, and K lines inside that are parallel to its base.

Input

The first line contains an integer T $1 \leq T \leq 10^5$, representing the number of test cases. Each of the next T lines represents a test case containing two integers separated by a space, N and K ($0 \leq N \leq 10^9$, $0 \leq K \leq 10^9$), representing, respectively, the number of lines going from the top to the base and the number of lines parallel to the base in the drawing.

Output

For each test case print the number of triangles in the drawing. As this number can be big print it mod 1000000007

Example

standard input	standard output
2 2 2 3 1	18 20