

Problem K. Master Zhu and Math Problem

Input file: *standard input*
Output file: *standard output*
Time limit: 3 seconds
Memory limit: 512 mebibytes

Master Zhu once came up with the following mathematical problem:

Given four integers, A , B , C , and D , how many different quadruples of integers (a, b, c, d) are there which satisfy all the following conditions:

$$\begin{aligned}a + c &> b + d \\a + d &\geq b + c \\0 &\leq a \leq A \\0 &\leq b \leq B \\0 &\leq c \leq C \\0 &\leq d \leq D\end{aligned}$$

Find the number of such quadruples. As the answer may be very large, it is sufficient to calculate it modulo $10^9 + 7$.

Input

The first line of input contains an integer T , the number of test cases ($1 \leq T \leq 1000$).

Each test case is given on a single line containing four integers A, B, C , and D ($0 \leq A, B, C, D \leq 10^{18}$).

Output

For each test case, output a single line with a single integer: the answer modulo $10^9 + 7$.

Example

standard input	standard output
1 2 1 1 1	10