Problem L
Locust Locus
Time limit: 1 second

There are two different species of periodical cicadas that only appear from hibernation every 13 and 17 years, respectively. Your old grandpa tells you that he saw them simultaneously back in '92. You start pondering how many years you have to wait until you see them again. You collect information about other pairs of periodical cicadas and when they were last observed to find out when the next simultaneous appearance is.

Given several different pairs of cicadas and their last simultaneous appearance, find the next year that one of the pairs reappears.

Input

The first line of input contains a single integer k ($1 \leq k \leq 99$), the number of pairs of periodical cicadas. Then follow k lines, each containing three integers y, c_1 and c_2 ($1800 \leq y \leq 2021$, $1 \leq c_1, c_2 \leq 99$), the year this pair was last observed and cycle lengths for the first and second species, respectively. You may assume that none of the k pairs reappears earlier than 2022.

Output

Output the first year a pair reappears.

Sample Input 1	Sample Output 1
3 1992 13 17 1992 14 18 2001 5 7	2036

Sample Input 2	Sample Output 2
2 2020 2 3 2019 3 4	2026

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