

Rock-Paper-Scissors

Input file: **standard input**
Output file: **standard output**
Time limit: 1 second
Memory limit: 1024 megabytes

LittleV and LittleA are about to play a fun game of Rock-Paper-Scissors. However, the traditional version is too boring, so they developed a new card-based version of Rock-Paper-Scissors.

Specifically, LittleV and LittleA each have n cards. LittleV has r_1 Rock cards, s_1 Scissors cards, and p_1 Paper cards, while LittleA has r_2 Rock cards, s_2 Scissors cards, and p_2 Paper cards. It is guaranteed that $n = r_1 + s_1 + p_1 = r_2 + s_2 + p_2$.

The game consists of n rounds. In each round, both players select one card from their own hands to play. The outcome is determined by the rules of Rock-Paper-Scissors, and the two played cards are then discarded. If LittleV wins, the cumulative score increases by $+1$; if LittleA wins, the cumulative score decreases by -1 ; and in case of a tie, the cumulative score remains unchanged.

Naturally, LittleV wants to maximize the cumulative score, while LittleA wants to minimize it. Now, they want to know, under random play, what the possible maximum and minimum values of the cumulative score could be.

Input

The first line of input contains an integer T ($1 \leq T \leq 10^4$), denoting the number of testcases.

For each testcase,

The input contains seven integers: $n, r_1, s_1, p_1, r_2, s_2, p_2$ ($0 \leq n \leq 10^9, 0 \leq r_1, s_1, p_1, r_2, s_2, p_2 \leq n, n = r_1 + s_1 + p_1 = r_2 + s_2 + p_2$), denoting the number of rounds, and the number of cards of each type for LittleV and LittleA.

Output

For each testcase, output a single line containing two integers, denoting the maximum and minimum possible scores, respectively.

Example

standard input	standard output
3	3 -3
3 1 1 1 1 1 1	1 1
1 0 1 0 0 0 1	0 0
0 0 0 0 0 0 0	