Problem A. Fighting Against Monsters

Input file:	`standard input`
Output file:	`standard output`
Time limit:	5 seconds
Memory limit:	256 megabytes

One day, a hero and three monsters are fighting in the forest through turn-based battles. These monsters are a boss monster, which has extremely high health points, and two little monsters, which have fairly low health points. The health points of the three monsters are HP_A, HP_B and HP_C respectively, and their attack values are ATK_A, ATK_B and ATK_C respectively.

The turn-based battle occurs every second. During the i-th second, the hero will be attacked by monsters at first, and the damage is the sum of attack values of all alive monsters. Then he will select **exactly one** monster which is still alive and attack it. The selected monster will suffer damages of value i (i.e. its health points will be decreased by i). For instance: during the 1-st second, one of these three monsters will be under an attack of damage 1; during the 2-nd second, one of them, which is alive, will be under an attack of damage 2; during the 3-rd second, one of them, which is alive, will be under an attack of damage 3; and so on.

Once the value of a monster's health points is less than or equal to zero, it will die immediately. The hero will win if all the monsters have been killed.

The hero knows that health is very precious! He wants you to develop a strategy to minimize the total damages the hero should suffer before he wins the battle.

Input

There are multiple test cases. The first line of the input contains an integer T ($1 \le T \le 50$), indicating the number of test cases. For each test case:

The first line contains six integers HP_A, HP_B, HP_C, ATK_A, ATK_B and ATK_C ($1 \le HP_A, HP_B \le 100$, $1 \le HP_C \le 10^{18}$, $1 \le ATK_A, ATK_B, ATK_C \le 10^9$).

Output

For each test case, output an integer in a single line, denoting the minimal total damages the hero should suffer.

Example

standard input	standard output
2 1 10 100 3 2 1 3 2 1 1 10 100	28 123