Rock-Paper-Scissors — 2

Input file:	`rps2.in`
Output file:	`rps2.out`
Time limit:	1 second
Memory limit:	512 megabytes

A year ago Rostislav and Miroslav were playing "Rock-Paper-Scissors" game. After each round winner of this round flicked on loser's head. In case of a draw, nothing happened. Miroslav remembers this game very well as his worst game ever. All next day he had a headache.

Miroslav remembered it even better, when he found a piece of paper with six integers on it — the record of that game. Much time passed, and Miroslav can deeply think about why he lost so many rounds. But, unfortunately, he can't count exact number of rounds lost, because the record consists of numbers r_1, s_1, p_1 — number of rounds, during which Rostislav played Rock, Scissors and Paper, respectively. And numbers r_2, s_2, p_2 — similar numbers for Miroslav.

Help Miroslav to learn, what is the minimum number of rounds he could have lost during that game.

For your information, winner of the round is defined according to these rules:

- Rock crashes Scissors
- Scissors cuts Paper
- Paper covers Rock

If players play equal signs, the result of the round happens to be a draw.

Input

First line contains three integers r_1, s_1 and p_1.

Second line contains three integers r_2, s_2 and p_2.

All integers are non-negative and don't exceed 10^8, plus $r_1 + s_1 + p_1 = r_2 + s_2 + p_2$.

Output

Output single integer: minimum number of rounds Miroslav could have lost.

Scoring

Subtask	Points	Constraints	Scoring
0	0	—	sample tests
1	19	Exactly one of three numbers is not zero for each player	subtask
2	37	At least one of three numbers is zero for each player	subtask
3	44	—	subtask

Examples

rps2.in	rps2.out
3 0 0 0 3 0	3