UTS Open '18 P2 - ABCs

Time limit: 2.0s **Memory limit:** 256M

You have 3 sequences A, B, and C, each containing 3 integers. A subsequence of C is *valid* if for each C_i in the subsequence, $B_i = A_{i-1}$ (indices are taken mod 3, so $A_0 = A_3$).

What is the maximum sum of a valid subsequence of C?

Input Specification

The first row contains A_1, A_2, A_3, the second row contains B_1, B_2, B_3, and the third row contains C_1, C_2, C_3.

$-10^5 \leq A_i, B_i, C_i \leq 10^5$ for all i.

Output Specification

Output the maximum sum of a valid subsequence of C (The subsequence can be empty, in which case the sum would be 0).

Sample Input

```
5 6 5
6 5 6
6 1 4
```

Sample Output

```
5
```

Explanation for Sample Output

Since $B_2 = A_1$ and $B_3 = A_2$, C_2 and C_3 are valid and can be included in the subsequence. However, $B_1 \neq A_0$, so C_1 cannot be included in the subsequence. This subsequence has sum 5.