

1753. Maximum Score From Removing Stones

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You are playing a solitary game with **three piles** of stones of sizes a , b , and c respectively. Each turn you choose two **different non-empty** piles, take one stone from each, and add 1 point to your score. The game stops when there are **fewer than two non-empty** piles (meaning there are no more available moves).

Given three integers a , b , and c , return *the maximum score you can get*.

User Accepted:	3336
User Tried:	3915
Total Accepted:	3427
Total Submissions:	6330
Difficulty:	Medium

Example 1:

Input: $a = 2, b = 4, c = 6$
Output: 6
Explanation: The starting state is (2, 4, 6). One optimal set of moves is:
- Take from 1st and 3rd piles, state is now (1, 4, 5)
- Take from 1st and 3rd piles, state is now (0, 4, 4)
- Take from 2nd and 3rd piles, state is now (0, 3, 3)
- Take from 2nd and 3rd piles, state is now (0, 2, 2)
- Take from 2nd and 3rd piles, state is now (0, 1, 1)
- Take from 2nd and 3rd piles, state is now (0, 0, 0)
There are fewer than two non-empty piles, so the game ends. Total: 6 points.

Example 2:

Input: $a = 4, b = 4, c = 6$
Output: 7
Explanation: The starting state is (4, 4, 6). One optimal set of moves is:
- Take from 1st and 2nd piles, state is now (3, 3, 6)
- Take from 1st and 3rd piles, state is now (2, 3, 5)
- Take from 1st and 3rd piles, state is now (1, 3, 4)
- Take from 1st and 3rd piles, state is now (0, 3, 3)
- Take from 2nd and 3rd piles, state is now (0, 2, 2)
- Take from 2nd and 3rd piles, state is now (0, 1, 1)
- Take from 2nd and 3rd piles, state is now (0, 0, 0)
There are fewer than two non-empty piles, so the game ends. Total: 7 points.

Example 3:

Input: $a = 1, b = 8, c = 8$
Output: 8
Explanation: One optimal set of moves is to take from the 2nd and 3rd piles for 8 turns until they are empty. After that, there are fewer than two non-empty piles, so the game ends.

Constraints:

- $1 \leq a, b, c \leq 10^5$

Discuss (<https://leetcode.com/problems/maximum-score-from-removing-stones/discuss>)

Java

```
1 class Solution {
2     public int maximumScore(int a, int b, int c) {
3
4     }
5 }
```