1753. Maximum Score From Removing Stones

Description

You are playing a solitaire 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.

Example 1:

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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:

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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 <= a, b, c <= 10^{5}