

# 1561. Maximum Number of Coins You Can Get

## Description

There are  $3n$  piles of coins of varying size, you and your friends will take piles of coins as follows:

- In each step, you will choose **any** 3 piles of coins (not necessarily consecutive).
- Of your choice, Alice will pick the pile with the maximum number of coins.
- You will pick the next pile with the maximum number of coins.
- Your friend Bob will pick the last pile.
- Repeat until there are no more piles of coins.

Given an array of integers `piles` where `piles[i]` is the number of coins in the  $i^{\text{th}}$  pile.

Return the maximum number of coins that you can have.

### Example 1:

**Input:** `piles = [2,4,1,2,7,8]`

**Output:** 9

**Explanation:** Choose the triplet (2, 7, 8), Alice Pick the pile with 8 coins, you the pile with 7 coins and Bob the last one.

Choose the triplet (1, 2, 4), Alice Pick the pile with 4 coins, you the pile with 2 coins and Bob the last one.

The maximum number of coins which you can have are:  $7 + 2 = 9$ .

On the other hand if we choose this arrangement (1, 2, 8), (2, 4, 7) you only get  $2 + 4 = 6$  coins which is not optimal.

### Example 2:

**Input:** `piles = [2,4,5]`

**Output:** 4

### Example 3:

**Input:** `piles = [9,8,7,6,5,1,2,3,4]`

**Output:** 18

### Constraints:

- $3 \leq \text{piles.length} \leq 10^5$
- $\text{piles.length} \% 3 == 0$
- $1 \leq \text{piles}[i] \leq 10^4$

