

# 1561. Maximum Number of Coins You Can Get

Solved ●

Medium  Topics  Companies  Hint

There are `n` 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:

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

Seen this question in a real interview before? 1/4

Yes No

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