House Robber

Try to solve the House Robber problem.

We'll cover the following ⌃

- • Statement
- • Example
- • Understand the problem
- • Try it yourself

Statement

You are a professional robber, and after weeks of planning, you plan to rob some houses along a street. Each of these houses has a lot of money and valuables. Let's say that you cannot rob houses adjacent to each other since they have security and burglar alarms installed.

Following the above mentioned constraint and given an integer array, `nums`, representing the amount of money in each house, return the maximum amount of money you can steal tonight without alerting the police.
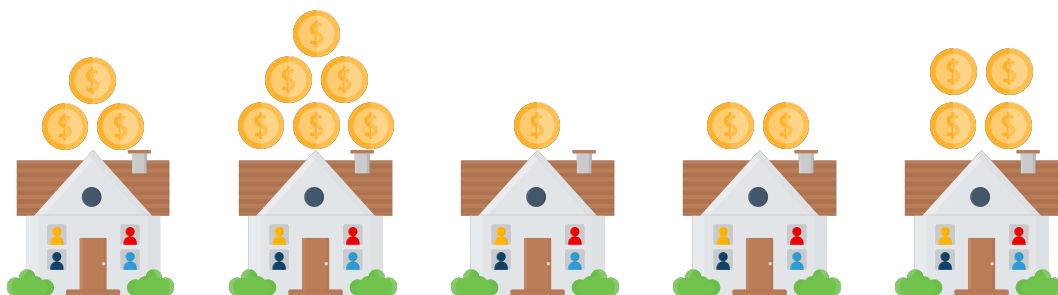
Constraints

- $1 \leq$ `nums.length` ≤ 100
- $0 \leq$ `nums[i]` ≤ 400

Example

Sample example 1

The robber can rob from the following 5 houses, but since there could be an alarm in adjacent houses, the robber has to be very careful. Let's see what choices the robber makes to get the most optimal robbery!

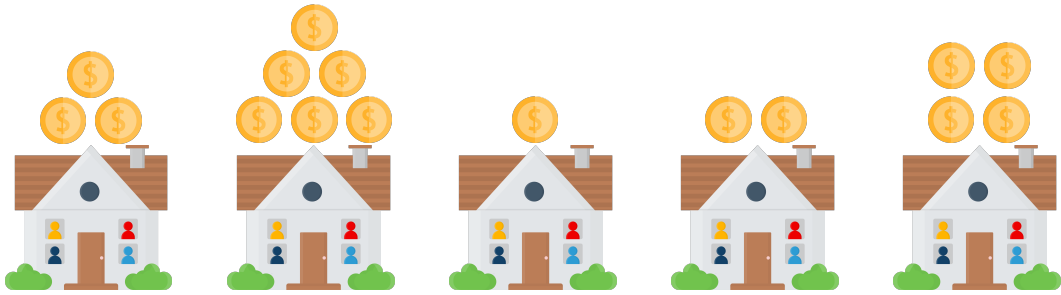House A - $300   House B - $600   House C - $100   House D - $200   House E - $400

Sample example 1

The robber visits house A, which has a good loot, but chooses to proceed further to look for a bigger loot.

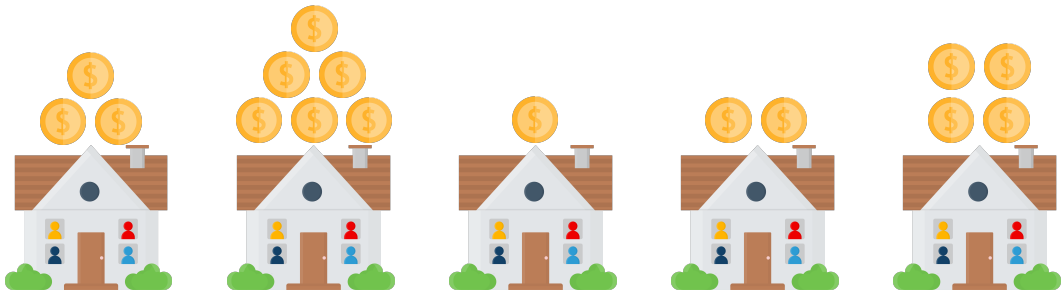House A - $300   House B - $600   House C - $100   House D - $200   House E - $400

Sample example 1

The robber now visits house B, which has an even better loot. The robber robs this house and moves further down the street to look for more loot.

House A - $300   House B - $600   House C - $100   House D - $200   House E - $400

Sample example 1

Since the robber cannot loot from adjacent houses, they move to the next house, that is House D.

House A - $300   House B - $600   House C - $100   House D - $200   House E - $400

Sample example 1

The robber doesn't find a good loot from house D but doesn't have much of a choice, as adjacent houses have security systems installed. The robber loots this house and moves to the next house.

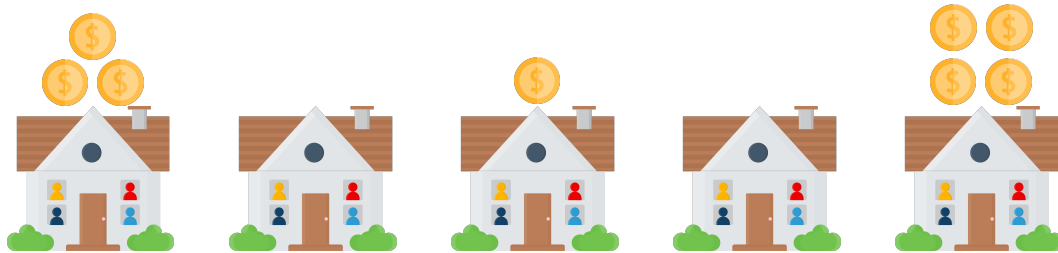| House A - $300 | House B - $600 | House C - $100 | House D - $200 | House E - $400 |

Sample example 1

The robber visits the last house on the street that is adjacent to the one he has looted before. As a result, the robber cannot loot this house since it would alert the police.

Total loot collected is: $600 + $200 = $800

| House A - $300 | House B - $600 | House C - $100 | House D - $200 | House E - $400 |

Understand the problem

Let's take a moment to make sure you've correctly understood the problem. The quiz below helps you check if you're solving the correct problem:

House Robber

1 Given the following array, `nums`, what would be the correct output?

nums = [1, 2, 3, 1]

A) 3

B) 4

C) 1

Submit Answer

‹ Question 1 of 2
0 attempted ›

Reset Quiz ⟳

Try it yourself

Implement your solution in the following coding playground:

Java 🖫 ⟳

usercode > RobHouses.java

```
1   import java.util.*;
5           // Your code will replace the placeholder return statement.
6
7           return 0;
8       }
9   }
```

✦ Powered by AI ▷ **Submit**

Test Cases   Results

| Case 1 | Case 2 | Case 3 |

Input #1

[0,1,2,5]

House Robber

💡 Hide Hint

You might want to go over the Dynamic Programming pattern again.

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