

Best Time to Buy and Sell Stock

Try to solve the Best Time to Buy and Sell Stock problem.

We'll cover the following ^

- Statement
- Examples
- Understand the problem
- Figure it out!
- Try it yourself

Statement

Given an array where the element at the index `i` represents the price of a stock on day `i`, find the maximum profit that you can gain by buying the stock once and then selling it.

Note: Stock can only be purchased on a single day and sold on a different day. If no profit can be achieved, we return zero.

Constraints:

- We can't sell before buying a stock, that is, the array index at which stock is bought will always be less than the index at which the stock is sold.
- $1 \leq \text{prices.length} \leq 10^5$
- $0 \leq \text{prices}[i] \leq 10^5$

Examples

Understand the problem

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

Best Time to Buy and Sell Stock

?

Tt

1

What should be the output if the following prices are given as an input?

prices = [10, 4, 11, 1, 5]

A) 9

B) 7

C) 1

D) 3

Submit Answer



Question 1 of 4
0 attempted



Reset Quiz ↻

Figure it out!

We have a game for you to play. Rearrange the logical building blocks to develop a clearer understanding of how to solve this problem.

Note: As an additional challenge, we have intentionally hidden the solution to this puzzle.



Drag and drop the cards to rearrange them in the correct sequence.

Initialize `buy` and `sell` pointers to 0 and 1, respectively, and set maximum profit variable to 0.

Iterate `sell` pointer over the `prices`, computing the current profit by subtracting the `prices[buy]` from the `prices[sell]`.

If `prices[buy]` is less than `prices[sell]`, choose the maximum value from current profit or maximum profit and store it in the maximum



profit. Otherwise, update **buy** to be equal to **sell**.

Once the **sell** pointer reaches the end, return the maximum profit.

Reset

Show Solution

Submit

Try it yourself



Note: We have left the solution to this challenge as an exercise for you. You may try to translate the logic of the solved puzzle into a coded solution.

Java



usercode > MaxProfit.java

```
1 import java.util.*;
2 public class MaxProfit{
3     public static int maxProfit(int[] stockPrices) {
4
5         // your code will replace this placeholder return statement
6
7         return -1;
8     }
9 }
```

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Submit

Test Cases Results

Case 1

Case 2

Case 3

Input #1

[1,2,4,2,5,7,2,4,9,0,9]

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Solution: Minimum Siz...

Merge Intervals: Intro...

☒ Mark as Completed

