

# Question

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12:44 PM

## 121. Best Time to Buy and Sell Stock

Easy

👍 25K

💬 786



🔒 Companies

You are given an array `prices` where `prices[i]` is the price of a given stock on the  $i^{\text{th}}$  day.

You want to maximize your profit by choosing a **single day** to buy one stock and choosing a **different day in the future** to sell that stock.

Return *the maximum profit you can achieve from this transaction*. If you cannot achieve any profit, return `0`.

### Example 1:

Input: `prices = [7,1,5,3,6,4]`

Output: `5`

Explanation: Buy on day 2 (price = 1) and sell on day 5 (price = 6), profit =  $6 - 1 = 5$ .

Note that buying on day 2 and selling on day 1 is not allowed because you must buy before you sell.

### Example 2:

Input: `prices = [7,6,4,3,1]`

Output: `0`

Explanation: In this case, no transactions are done and the max profit = `0`.

### Constraints:

- $1 \leq \text{prices.length} \leq 10^5$
- $0 \leq \text{prices}[i] \leq 10^4$