

## 121. Best Time to Buy and Sell Stock

Easy

TopicsCompanies

You are given an array of prices where  $\text{prices}[i]$  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.

Hint : create an arrow function to solve the question asked. Use the examples below to guide your function business logic.

### Example 1:

**Input:**  $\text{prices} = [7, 1, 5, 3, 6, 4]$

**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:**  $\text{prices} = [7, 6, 4, 3, 1]$

**Output:** 0

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

### Constraints:

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