You are given an array prices where prices[i] is the price of a given stock on the ith 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 <= prices.length <= 105
* 0 <= prices[i] <= 104