Max Profit Trading Stocks [Google Python Interview Question]

You are given a list of stock `prices`, where the stock's price on the ith day is stored as the ith element of the prices list.

You want to maximize your profit trading the stock, but are only allowed to buy the stock once and sell it once on a future day.

Write a function called `max_profit` which takes in this list of stock prices, and computes the max profit possible. Return `0` if you can't make any profit.

Example 1:

Input: prices = [9, 1, 3, 6, 4, 8, 3, 5, 5] Output: 7 Explanation: Buy on day 2 (price = 1) and sell on day 6 (price = 8), $profit = 8-1=7$.

Note that buying on day 2 and selling on day 1 is not allowed because you have to buy the stock BEFORE you can sell it (unless your a time-traveller in which case just trade bitcoin).

Example 2:

Input: prices = [6, 4, 3, 3, 2] Output: 0 Explanation: In this case, no trades should be made since the stock is tanking like a brick. The max profit here is 0.