

# Exercise: Buy and Sell Stock

Challenge yourself with an exercise in which you'll have to find the maximum profit generated by buying and selling stocks!

## We'll cover the following



- Problem
- Coding Time!

## Problem #

Given an array of numbers consisting of daily stock prices, calculate the maximum amount of profit that can be made from buying on one day and selling on another.

In an array of prices, each index represents a day, and the value on that index represents the price of the stocks on that day.

Here is the way to calculate the profit:

$$\text{Profit} = \text{Selling Price} - \text{Buying Price}$$

Note that you need to buy the stocks before you sell them so the day ( `index` ) indicating the buying price should be before the day ( `index` ) indicating the selling price.

Have a look at an example illustrated below:

	310	315	275	295	260	270	290	230	255	250
Day	0	1	2	3	4	5	6	7	8	9

Maximum Profit = 30

Buying Price = 260

Selling Price = 290

If stocks are bought on day 4 for a price of 260 and sold on day 6 for a price of 290, we end up with a maximum profit of 30.

## Coding Time! #

Your task is to return the maximum profit from the function

`buy_and_sell_stock_once(prices)` given in the code widget below. The input parameter `prices` is the array of integers that contains the price of stocks at each day where a day is represented by the index.

Good luck!

```
def buy_and_sell_stock_once(prices):  
    pass
```

