## 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:

Profit = Selling Price - 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
                                5
                                     6
           1
                      3
                           4
                                                 8
                                                      9
Day
    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!

