

121 - Best Time to Buy and Sell Stock



As we move through the prices array, each time we encounter a value $< \text{prices}[\text{buy}]$, we set buy to that index, else if we see a value $> \text{prices}[\text{buy}]$ we check whether $\text{profit} > \text{max_profit}$ and update max_profit if so.

One array traversal, each item only visited once (no nested traversals) $\therefore O(n)$ time.