
Algorithm Find the maximum profit that you can earn by doing at most one transaction

Ensure: One Based Indexing

1: **function** BUY_SELL(Arr, len)

$\triangleright maxRight[i]$ denotes the max element to the right of the $i - th$ element, including it

2: $maxRight[len] \leftarrow a[len]$

3: **for** $i = len - 1 : 1$ **do**

4: $maxRight[i] \leftarrow \max(maxRight[i + 1], a[i])$

$\triangleright profit[i]$ denotes the max profit that you can earn if you can only buy at the $i - th$ day

5: **for** $i = len : 1$ **do**

6: $profit[i] \leftarrow (maxRight[i] - a[i])$

7: **return** Maximum element of $Profit$ array
