

Best time to buy and sell stock

Question: Say you have an list for which the i th element is the price of a given stock on day i .

If you were only permitted to complete at most one transaction (ie, buy one and sell one share of the stock), design an algorithm to find the maximum profit.

Solutions:

```
class Solution:
```

```
    def maxProfit(prices):
```

```
        minValue = float("inf")
```

```
        maxBenefit = 0
```

```
        for price in prices:
```

```
            if minValue > price:
```

```
                minValue = price
```

```
            if maxBenefit < price - minValue:
```

```
                maxBenefit = price - minValue
```

```
        return maxBenefit
```

```
print ( Solution.maxProfit([7, 1, 5, 3, 6, 4]) )
```

```
print ( Solution.maxProfit([7, 6, 4, 3, 1]) )
```