

动态规划：188. 买卖股票的最佳时机 IV

```
1 class Solution {
2 public:
3     int maxProfit(int k, vector<int>& prices) {
4         int n = prices.size();
5         k = min(k,n/2);
6         vector<vector<int>> f(n,vector<int>(k+1,-0x3f3f3f3f));
7         auto g = f;
8         f[0][0] = -prices[0],g[0][0] = 0;
9
10        for(int i = 1;i < n;i++)
11        {
12            for(int j = 0;j <= k;j++)
13            {
14                f[i][j] = max(f[i-1][j],g[i-1][j] - prices[i]);
15                g[i][j] = g[i-1][j];
16                if(j >= 1)
17                {
18                    g[i][j] = max(g[i][j],f[i-1][j-1] + prices[i]);
19                }
20            }
21        }
22        int ret = 0;
23        for(int j = 0; j<= k;j++)
24        {
25            ret = max(ret,g[n-1][j]);
26        }
27        return ret;
28    }
29 };
```