

Problem Set 1

Name: Zunmi

Collaborators: None.

Problem 1-1.

- (a) $(f_5, f_3, f_4, f_1, f_2)$
- (b) $(f_1, f_2, f_5, f_4, f_3)$
- (c) $(\{f_2, f_5\}, f_4, f_1, f_3)$
- (d) $(f_5, f_2, f_1, f_3, f_4)$

Problem 1-2.

- (a)

```
def reverse(D,i,k):  
    if k < 2:  
        return  
    x1 = D.delete_at(i+k-1)  
    x2 = D.delete_at(i)  
    D.insert_at(i,x1)  
    D.insert_at(i+k-1,x2)  
    reverse(D,i+1,k-2)
```
- (b)

```
def move(D,i,k,j):  
    if k < 1:  
        return  
    x = D.delete_at(i)  
    if i > j:  
        j = j-1  
    D.insert_at(j,x)  
    j = j+1  
    if i < j:  
        i = i+1  
    move(D,i,k,j)
```

Problem 1-3.

- 1.build a static array of size n
- 2.A,B store the marked index

Problem 1-4.

- (a) code in .python file
- (b) code in .python file
- (c) code in .python file
- (d) code in .python file