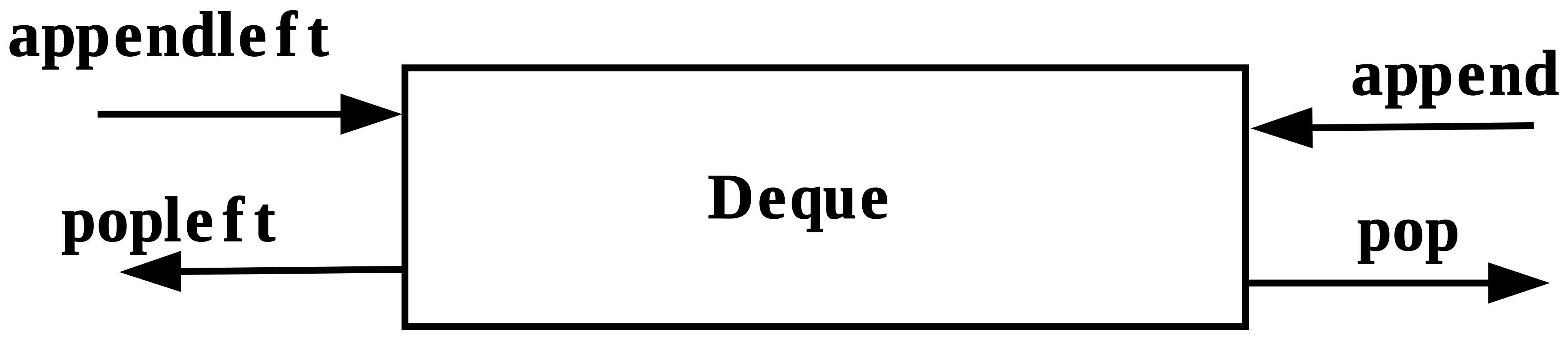


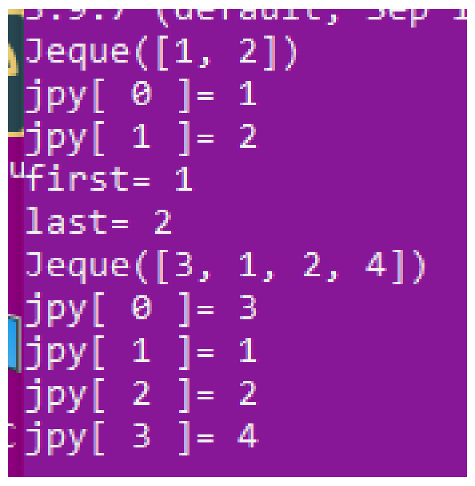
appendleft
popleft
append
pop
d[i]
len(d)
print(d)

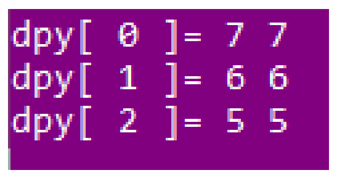
THETA(1) TIME
THETA(1) SPACE
(excluding deque space)

```
jpy = Deque() #jag deque
jpy.appendleft(1)
jpy.append(2)
print(jpy);
a = [1,2]
l = len(jpy)
for i in range(l):
    ji = jpy[i]
    print("jpy[",i,"]=",ji)
    myassert(ji == a[i])

x = jpy.first()
print("first=",x)
myassert(x ==1)
x = jpy.last()
print("last=",x)
myassert(x == 2)
x = jpy.pop()
myassert(x == 2)
x = jpy.popleft()
myassert(x == 1)
y = jpy.is_empty()
myassert(y == True)
jpy.appendleft(1)
jpy.append(2)
jpy.appendleft(3)
jpy.append(4)
print(jpy);
l = len(jpy)
a = [3,1,2,4]
for i in range(l):
    ji = jpy[i]
    print("jpy[",i,"]=",ji)
    myassert(ji == a[i])
```

MUST BE O(1)


```
3.9.7 (default, Sep 1
Jeque([1, 2])
jpy[ 0 ]= 1
jpy[ 1 ]= 2
first= 1
last= 2
Jeque([3, 1, 2, 4])
jpy[ 0 ]= 3
jpy[ 1 ]= 1
jpy[ 2 ]= 2
jpy[ 3 ]= 4
```


```
dpy[ 0 ]= 7 7
dpy[ 1 ]= 6 6
dpy[ 2 ]= 5 5
```