Python 'Refresher 2
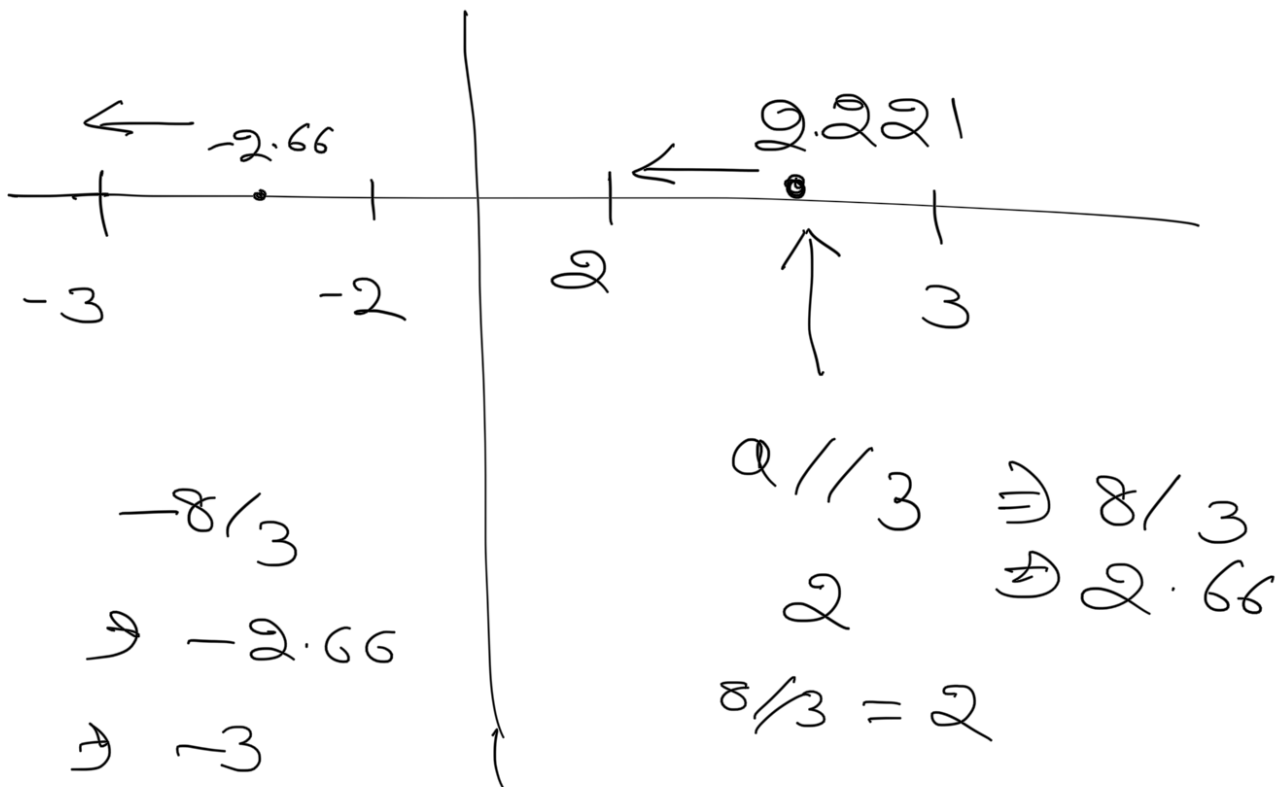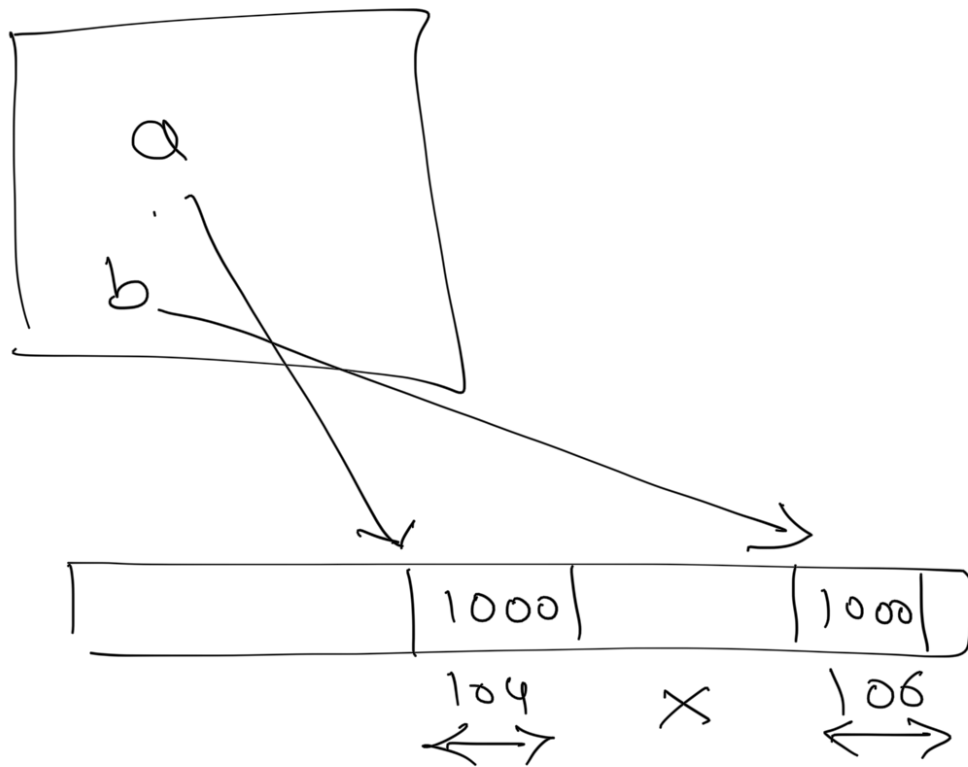
1) Quiz :- Revision

2) Iteration Protocol

3) Functions and Scope
- Positional Arguments
- Keyword Arguments
- Global scope vs local scope
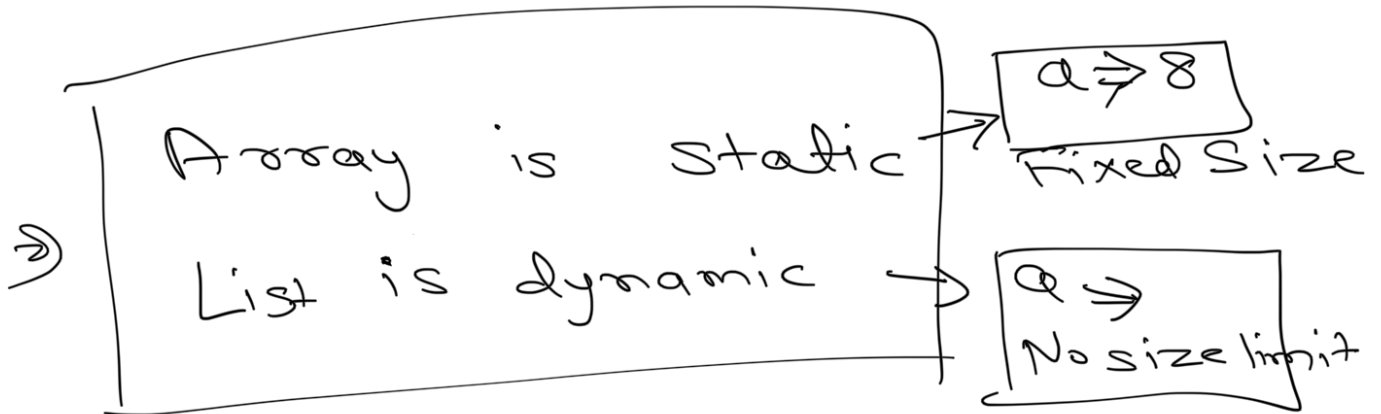
4) List
- Mutability
- List Methods

$$2.221$$
$$-2.66$$

-3   -2   2   3

$$-8/3$$
$$\Rightarrow -2.66$$
$$\Rightarrow -3$$

$$2//3 \Rightarrow 8/3$$
$$2 \qquad \Rightarrow 2.66$$
$$8/3 = 2$$

a

b

	1000		1000

104   X   106

Iteration protocol

⇒ (iter) ⇒ Takes an iterable
and Converts into
iterator

⇒ Next ⇒ iterates over
iterator one
by one till
last position

___

List ⇒ Data Structure which
Stores al...

Array ⇒ ||

⇒
Array is Static → a ⇒ 8 Fixed Size

List is dynamic → a ⇒ No size limit

⇒
Array is Homogeneous

List is Heterogeneous

Homogeneous :- Can Store only one type of Data

a = [1, 2, 3]

a = [1, 2, 3, 'a'] ✗
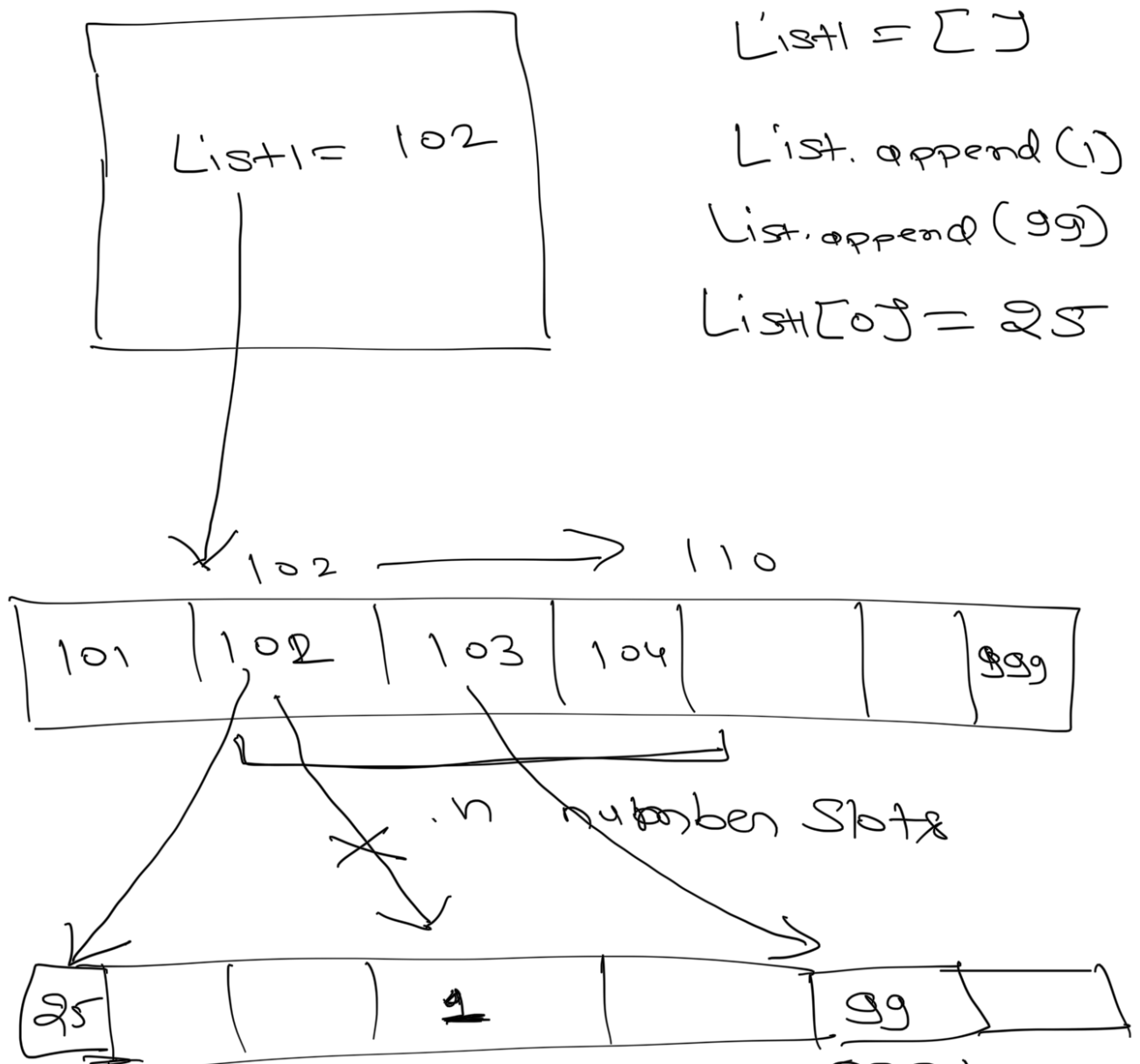
b = ['a', 'b', 'c']

b. append (1)   Error

Heterogeneous :- You can add
any object

$a = [1, 2, "a", [2.3]]$ ✓

$b = [1, 2, print, [2, 5]]$ ✓

List1 = 102

List1 = [ ]
List. append (1)
List. append (99)
List[0] = 25

102 ——————→ 110

| 101 | 102 | 103 | 104 | | | 999 |

.n number Slots

| 25 | ( ) | 1 | | 99 | |

11 22   2001   3321

List Slicing

$$\underline{3} \quad x \quad \xrightarrow{7} x \quad \cancel{9}$$

$$[\ 1,\ 2,\ 3,\ ^c2^o,\ 7,\ 8,\ 9\ ]$$
$$\quad\ \ 0 \quad\quad 1 \quad\quad 2 \quad\quad 3, \quad 4 \quad\ 5 \quad 6$$
$$\quad\quad\quad\quad\quad\quad\quad\quad \uparrow \xrightarrow{\quad\quad} \uparrow$$

List [Start : End : jumpSize]

List [2 : 5] = [2:5:1]

List [2 : 5 : 2] ⇒ 3, 7

List1 [2 : 5 : 10] ⇒ 3

List1 [2 : 10] ⇒ 3, 2, 7, 8, 9

Negative Direction Slicing

−1 ← Start   end

[1   2   3   4   5   6   7   8   9]
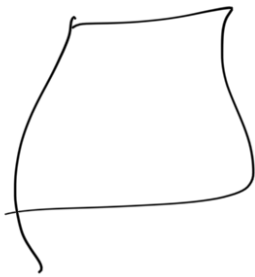 ⑩   ①   ②   ③   ④   ⑤   ⑥   ⑦   ⑧
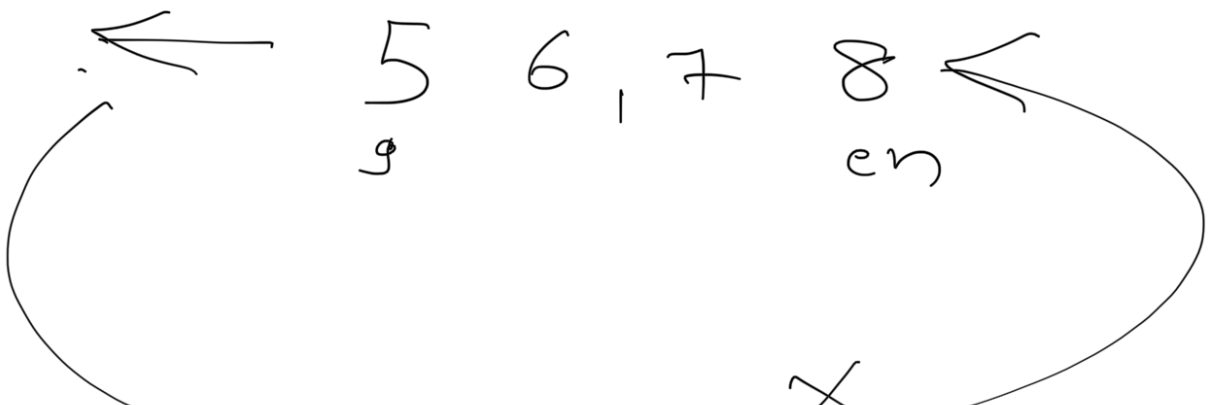
        ‖
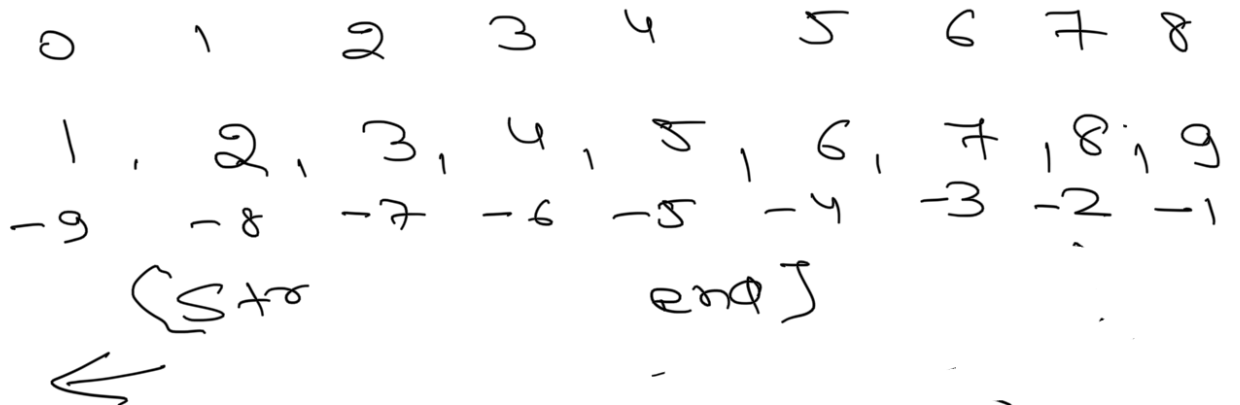   Stop   ←
                                         −1

⇒ List [8 : 2 : −1] =   9, 8, 7, 6, 5
                          4

⇒ List [2 : 8 : −1] =

        ←
       St   end
       2, 3, 4

         −1
        ← −1
      ← 5 6, 7 8 ←
         9   en
                    X

0   1   2   3   4   5   6   7   8

1, 2, 3, 4, 5, 6, 7, 8, 9

-9   -8   -7   -6   -5   -4   -3 -2 -1

[Str   end]

←

-8 : -5 : -1 ⟹

Slicing   Concept