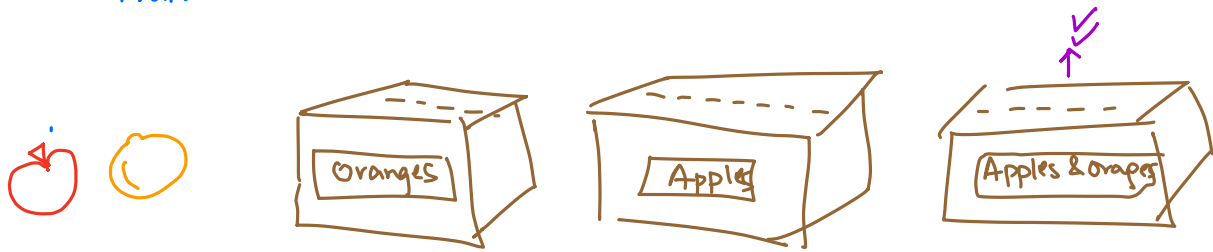


Warm Up Puzzle

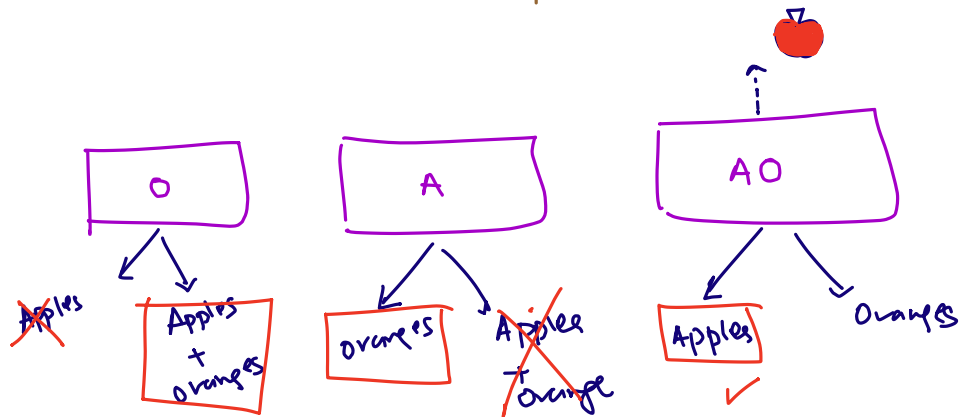
Fruit Market Labels are incorrect. / shuffles.



Draw one fruit out of any 1 box. Tell / Find
the correct fruit in each box.
What box you will pick & why?

Soln

Possibly



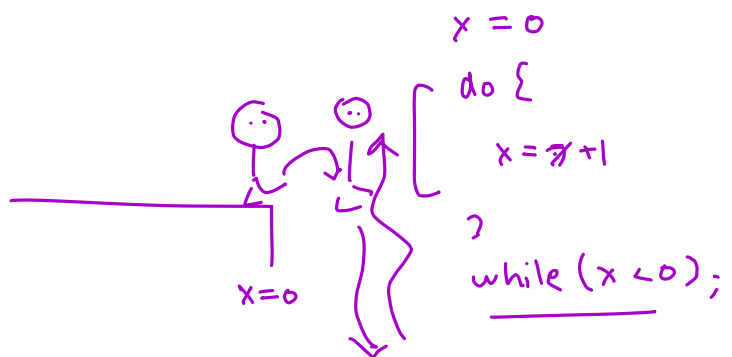
For

while loop

Entry → condition is checked

do-while

exit → condition checked exit



Two Approaches

① just printing the digits

while (n != 0):

print(n%10)

n = n/10

8, 6, 4

n = 468
 $n = n/10 \downarrow$
 n = 46
 \downarrow
 n = 4
 \downarrow
 n = 0

② Actual Rev

$$\begin{aligned} 1 \ 2 \ 3 \\ = 1 \times 10^2 \\ + 2 \times 10^1 \\ + 3 \times 10^0 \\ = 100 + 20 + 3 \end{aligned}$$

$$\begin{aligned} 3 \ 2 \ 1 \\ = 3 \times 10^2 \\ + 2 \times 10^1 \\ + 1 \times 10^0 \\ = 300 + 20 + 1 \\ = 321 \end{aligned}$$

n = 2468 ans = 0

rem = n%10
 \downarrow
 2468 , 8

$$\begin{aligned} \text{ans} &= \text{ans} \times 10 + \text{rem} \\ &= 0 \times 10 + 8 = \underline{\underline{8}} \end{aligned}$$

86

$n = n/10 \downarrow$
 246

⑥

$$= 8 \times 10 + 6 = \underline{\underline{86}} \text{ '4'}$$

\downarrow
 24

④

$$= 86 \times 10 + 4 = 864 \text{ '2'}$$

\downarrow
 2
 \downarrow
 0

'2'

$$= 864 \times 10 + 2 = \underline{\underline{8642}}$$

$$\begin{aligned} &= 8 \times 10^3 \\ &+ 6 \times 10^2 \\ &+ 4 \times 10^1 \\ &+ 2 \times 10^0 \\ &= \underline{\underline{8642}} \end{aligned}$$

Stop