

10.17 Exercises

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1) Yes

2) It starts from the last element to the beginning element

3) `lst = [45, -3, 16, 8]`

4)

a. `lst[0]`

b. `lst[3]`

c. 10

d. 29

e. -4

f. 29

g. 10

h. List indices cannot be float

5)

a. 3

b. 5

c. 1

d. 5

e. 5

f. 2

g. 0

h. 3

6) len function

7) []

8)

a. [20, 1, -34, 40, -8, 60, 1, 3]

b. [20, 1, -34]

c. [-8, 60, 1, 3]

d. [-8, 60, 1, 3]

e. [40, -8]

f. [20, 1, -34]

g. [-8, 60, 1, 3]

h. [20, 1, -34, 40, -8, 60, 1, 3]

i. [20, 1, -34, 40]

j. [1, -34, 40, -8]

k. True

l. False

m. 8

9)

1. Not possible

2. Not possible

3. Not possible

4. Not possible

5. $m=(\text{empty})$, $n=(\text{empty})$

6. $m=0$, $n=0$

7. Not possible (without indicating steps)

8. $m=0$, $n=3$

9. $m=2$, $n=(\text{empty})$

10. Not possible

11. $m=1$, $n=4$

10)

a. [8, 8, 8, 8]

b. [2, 7, 2, 7, 2, 7, 2, 7, 2, 7, 2, 7]

c. [1, 2, 3, 'a', 'b', 'c', 'd']

d. [1, 2, 1, 2, 1, 2, 4, 2]

e. [1, 2, 4, 2, 1, 2, 4, 2, 1, 2, 4, 2]

11)

a. [3, 5, 7, 9]

b. [50, 60, 70, 80, 90]

c. [12, 15, 18]

d. [(0, 0), (0, 1), (0, 2), (0, 3), (1, 0), (1, 1), (1, 2), (1, 3), (2, 0), (2, 1), (2, 2), (2, 3)]

e. [(0, 0), (0, 2), (1, 1), (1, 3), (2, 0), (2, 2)]

12)

a. $[x**2 \text{ for } x \text{ in range}(1, 6)]$

b. `[x/4 for x in range(1, 7)]`

c. `[(x, y) for x in ['a', 'b'] for y in range(3)]`

13) `x in lst`

14) It's a function that iterates over list elements from back to front

15 – 23) Answer in python file