



Lists & Tuples: Practice Exercises



Lists Practice Exercises



Exercises:

If you have this list, assigned to variable "test":

```
[["Jack", "456-342", 56], ("Emily", "231-523", 15), "Nora", [True, False]]
```

What is the value of each one of these expressions?

(Try to answer them without running the code. They could also throw errors)

- a) test[0]
- b) test[len(test)]
- c) test[-1]
- d) test[-3]
- e) test[0][2]
- f) test[1][5]
- g) test[3][0]
- h) test[1:]
- i) test[:]
- j) test[3][-1]
- k) test[0][0]
- l) test[1][0] + test[2]
- m) test[:2]
- n) test[::2]
- o) test[::-1]
- p) test[:-1]





Lists Practice Exercises (answers)



Answers:

If you have this list, assigned to variable "test":

```
[["Jack", "456-342", 56], ("Emily", "231-523", 15), "Nora", [True, False]]
```

What is the value of each one of these expressions?

(Try to answer them without running the code. They could also throw errors)

```
>>> test = [["Jack", "456-342", 56], ("Emily", "231-523", 15), "Nora", [True, False]]
>>> test[0]
['Jack', '456-342', 56]
>>> test[len(test)]
Traceback (most recent call last):
  File "<pyshell#2>", line 1, in <module>
    test[len(test)]
IndexError: list index out of range
>>> test[-1]
[True, False]
>>> test[-3]
('Emily', '231-523', 15)
>>> test[0][2]
56
>>> test[1][5]
Traceback (most recent call last):
  File "<pyshell#6>", line 1, in <module>
    test[1][5]
IndexError: tuple index out of range
>>> test[3][0]
True
>>> test[1:]
[('Emily', '231-523', 15), 'Nora', [True, False]]
>>> test[:]
[['Jack', '456-342', 56], ('Emily', '231-523', 15), 'Nora', [True, False]]
>>> test[3][-1]
False
>>> test[0][0]
'Jack'
>>> test[1][0] + test[2]
'EmilyNora'
>>> test[:2]
[['Jack', '456-342', 56], ('Emily', '231-523', 15)]
>>> test[::2]
[['Jack', '456-342', 56], 'Nora']
>>> test[::-1]
[[True, False], 'Nora', ('Emily', '231-523', 15), ['Jack', '456-342', 56]]
>>> test[:-1]
[['Jack', '456-342', 56], ('Emily', '231-523', 15), 'Nora']
>>> |
```





Tuples Practice Exercises



Answers:

If you have this tuple, assigned to variable "test":

```
((("Rose", 45, 5.6), [1, 2, 3]), ("a", "b", "c"), "Puppy", [4, 7, 8])
```

What is the value of each one of these expressions?

(Try to answer them without running the code. They could also throw errors)

a) test[0][1][2]

b) test[0][0]

c) test[4]

d) test[3][1]

e) test[1:]

f) test[:-1]

g) test[::-2]

h) test[:2]

i) test[2][0]

j) test[1][1]

k) test[-3]

l) test[-3][0]

m) test[0][-2]

n) test[0][1][3]

o) test[0][::-1]

p) test[1][1:]





Tuples Practice Exercises (answers)



Answers:

If you have this tuple, assigned to variable "test":

```
(("Rose", 45, 5.6), [1, 2, 3]), ("a", "b", "c"), "Puppy", [4, 7, 8])
```

What is the value of each one of these expressions?

(Try to answer them without running the code. They could also throw errors)

```
>>> test = (("Rose", 45, 5.6), [1, 2, 3]), ("a", "b", "c"), "Puppy", [4, 7, 8])
>>> test[0][1][2]
3
>>> test[0][0]
('Rose', 45, 5.6)
>>> test[4]
Traceback (most recent call last):
  File "<pyshell#3>", line 1, in <module>
    test[4]
IndexError: tuple index out of range
>>> test[3][1]
7
>>> test[1:]
(('a', 'b', 'c'), 'Puppy', [4, 7, 8])
>>> test[:-1]
(('Rose', 45, 5.6), [1, 2, 3]), ('a', 'b', 'c'), 'Puppy')
>>> test[::-2]
([4, 7, 8], ('a', 'b', 'c'))
>>> test[:2]
(('Rose', 45, 5.6), [1, 2, 3]), 'Puppy')
>>> test[2][0]
'P'
>>> test[1][1]
'b'
>>> test[-3]
('a', 'b', 'c')
>>> test[-3][0]
'a'
>>> test[0][-2]
('Rose', 45, 5.6)
>>> test[0][1][3]
Traceback (most recent call last):
  File "<pyshell#14>", line 1, in <module>
    test[0][1][3]
IndexError: list index out of range
>>> test[0][::-1]
[[1, 2, 3], ('Rose', 45, 5.6)]
>>> test[1][1:]
('b', 'c')
```

