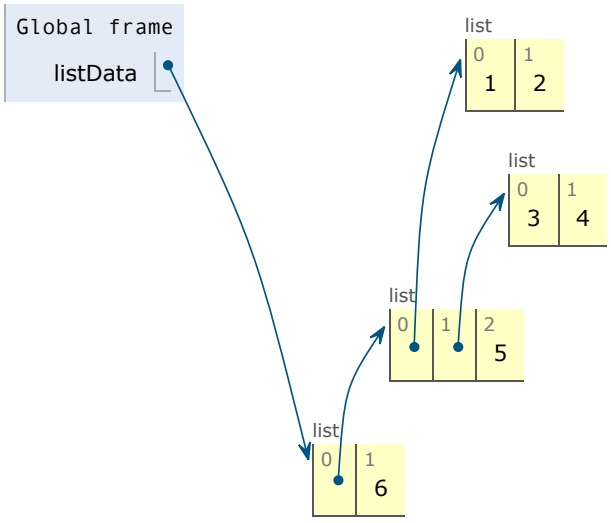
CIND830
Python Programming for Data Science
Lab 5 - Questions

1 Lists

Given the following structure, match each code on the left with its correct output on the right.

```
listData = [[[1, 2], [3, 4], 5], 6, [5, [4, 3], [2, 1]]]
```



Code1. `listData[1]`: 6

Code2. `listData[0 : 1]` `[[[1,2],[3,4],5]]`

Code3. `listData[0][1]` `[3,4]`

Code4. `listData[1]+listData[0][2]` `11`

Code5. `listData[0][0]+listData[0][1]` `[1,2,3,4]`

Code6. `listData[0][1][0]*listData[0][1]` `[3,4,3,4,3,4]`

Output1. [3, 4]

Output2. [3, 4, 3, 4, 3, 4]

Output3. [[[1, 2], [3, 4], 5]]

Output4. [1, 2, 3, 4]

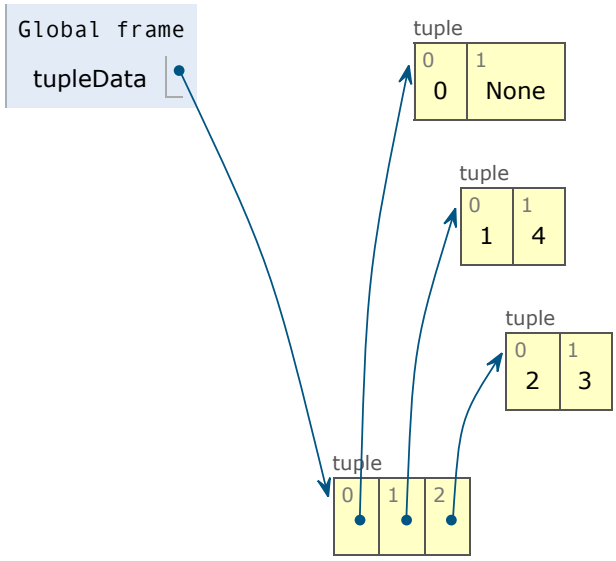
Output5. 6

Output6. 11

2 Tuples

Given the following structure, match each code on the left with its correct output on the right.

```
tupleData = ((0, None), (1, 4), (2, 3))
```



Code1. `max(tupleData[1])4`

Code2. `min(tupleData)(0,None)`

Code3. `sum(tupleData[1])5`

Code4. `len(tupleData)3`

Code5. `any(tupleData[0])True`

Code6. `all(tupleData)False`

Output1. 3

Output2. 4

Output3. False

Output4. (0, None)

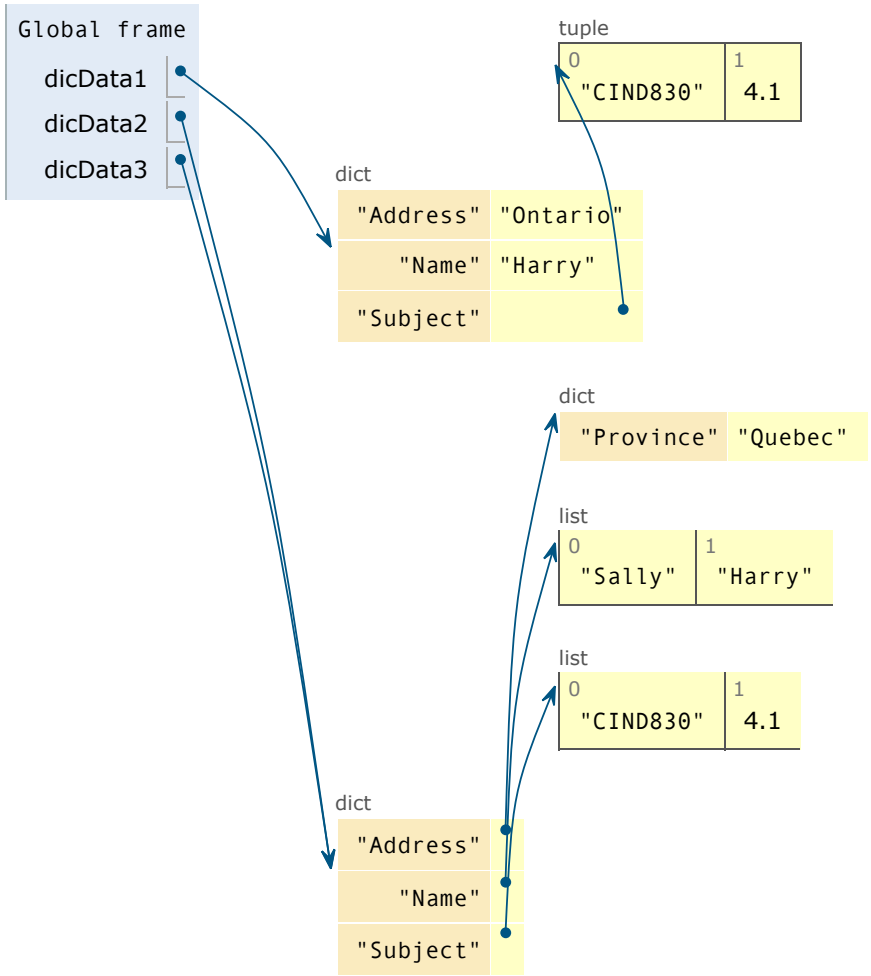
Output5. True

Output6. 5

3 Dictionaries

Given the following structure, match each code on the left with its correct output on the right.

```
dict1 = {'Address':'Ontario',\
         'Name':'Harry',\
         'Subject': ('CIND830', 4.1)}
dict2 = {'Address':{'Province': 'Quebec'},\
         'Name':['Sally', 'Harry'],\
         'Subject':  ['CIND830', 4.1]}
dict3 = dict2
```



Code1.
```
dict2['Name'] ['Sally','Harry']
```

Output1. ('Address', 'Ontario')

Code2.
```
dict3.get('Province')None
```

Output2. TypeError

Code3.
```
list(dict1.items())[0]

( 'Address' , 'Ontario' )
```

Output3. ['Sally', 'Harry']

Output4. 5

Code4.
```
len(dict1['Name'])5
```

Output5. None

Code5.
```
dict1['Subject'] is dict3['Subject']
False
```

Output6. False

Code6.
```
dict3['Address']+ dict1['Address']

TypeError
```

This is the end of lab 5
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