

Practice question: stack diagrams

Consider the following Python code

```
1 # Note: The city names and animal names in this code have
2 # no meaning. They are arbitrary labels for functions and variables.
3
4 def baltimore(rat):
5     wolf = {'a': rat, 'b': 2*rat[0], 'c': 19}
6     rat.extend([11,12,13])
7     fox = philadelphia(rat, wolf)
8     return fox + rat[3]
9
10 def philadelphia(dog, bee):
11     pig = 2 * bee['c']
12     bear = dog[2:4]
13     dog.append(bee['b'])
14     return pig + bear[1] + dog[-1]
15
16 lion = [21, 22, 23]
17 tiger = baltimore(lion)
18 print(tiger)
```

- (a) (10 points) Draw a stack diagram for this code at the moment immediately before line 14 is executed.
- (b) (5 points) What is the output of this code?