CL06: Memory Diagrams Practice

```
1   def speak(sound: str, repeat: int) -> None:
2   |    print(sound * repeat)
3
4   speak(sound="woof", repeat=3)
5   speak(sound="meow", repeat=2)
```

Stack	Heap	Output
Globals		

```python
def speak(sound: str, repeat: int) -> None:
    print(sound * repeat)


speak(sound="woof", repeat=3)
speak(sound="meow", repeat=2)


print(sound)
```

What if we added this line?

```
1  def jersey_num(number: int) -> int:
2      return number + 1
3
4  def make_jersey(name: str, number: int) -> str:
5      print(name + " is number " + str(jersey_num(number=number)))
6      return name + ":" + str(number + 1)
7
8  print(make_jersey(name="Lytle", number=7))
```

Stack

Globals

Heap

Output

```python
def jersey_num(number: int) -> int:
    return number + 1


def make_jersey(name: str, number: int) -> str:
    print(name + " is number " + str(jersey_num(number=number)))
    return name + ":" + str(number + 1)


print(make_jersey(name="Lytle", number=7))
print(make_jersey)
```

What if we added this line?

What if…

```python
1  def make_jersey(name: str, number: int) -> str:
2      print(name + " is number " + str(jersey_num(number=number)))
3      return name + ":" + str(number + 1)
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5  def jersey_num(number: int) -> int:
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8  print(make_jersey(name="Lytle", number=7))
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What if…

```
1  def make_jersey(name: str, number: int) -> str:
2      print(name + " is number " + str(jersey_num(number=number)))
3      return name + ":" + str(number + 1)
4
5  def jersey_num(number: int) -> int:
6      return number + 1
7
8  print(make_jersey(name="Lytle", number=7))
```

Confused? Try diagramming it!