

1. What does the following program print?

```
def fib(n):  
    `` `(int) -> int` ``  
    if n == 0:  
        return 0  
    elif n == 1:  
        return 1  
    else:  
        return fib(n-1) + fib(n-2)  
  
L = fib(8)  
print(L)
```

- a. [0, 1, 1, 2, 3, 5, 8, 13]
- b. 0
- c. 13
- d. Nothing. The program crashes

2. What does the following program print?

```
class Domino():  
    def __init__(self, pa, pb):  
        self.pa = pa  
        self.pb = pb  
    def display(self):  
        print("Side A: ", self.pa, end = " ")  
        print("Side B: ", self.pb, end = " ")  
    def value(self):  
        return (self.pa + self.pb)  
  
D1 = Domino(2, 6)  
D2 = Domino(4, 3)  
print("These points sum up to: ", D1.value() + D2.value())
```

- a. These points sum up to: 15
- b. These points sum up to: 6
- c. These points sum up to: 9
- d. Crashes
- e. None of the above

3. What does the following program print?

```
class CardGame():
    color = ("Spades", "Diamond", "Club", "Heart")
    value = (2, 3, 4, 5, 6, 7, 8, 9, 10, "Jack", "Queen", "King", "Ace")
def __init__(self):
    self.card = []
    for col in range(4):
        for val in range(13):
            self.card.append((val, col))
    return
game = CardGame()
print(game.color)
```

- a. ("Spades", "Diamond", "Club", "Heart")
 - b. ("Spades")
 - c. (2, 3, 4, 5, 6, 7, 8, 9, 10, "Jack", "Queen", "King", "Ace")
 - d. Error message
4. Consider the previous program. What will be printed if `print(CardGame.color)` replaced the last line?
- a. ("Spades", "Diamond", "Club", "Heart")
 - b. ("Spades")
 - c. (2, 3, 4, 5, 6, 7, 8, 9, 10, "Jack", "Queen", "King", "Ace")
 - d. Error message
5. What does the following program print?

```
class CardGame():
    color = ("Spades", "Diamond", "Club", "Heart")
    value = (2, 3, 4, 5, 6, 7, 8, 9, 10, "Jack", "Queen", "King", "Ace")
def __init__(self):
    self.card = []
    for col in range(4):
        for val in range(13):
            self.card.append((val, col))
game = CardGame()
print(game.color)
```

- a. ("Spades", "Diamond", "Club", "Heart")
 - b. ("Spades")
 - c. (2, 3, 4, 5, 6, 7, 8, 9, 10, "Jack", "Queen", "King", "Ace")
 - d. Error message
6. Consider the previous program. What will be printed if `print(CardGame.color)` replaced the last line?
- a. ("Spades", "Diamond", "Club", "Heart")
 - b. ("Spades")
 - c. (2, 3, 4, 5, 6, 7, 8, 9, 10, "Jack", "Queen", "King", "Ace")
 - d. Error message

7. Write a recursive version of the following program that computes the sum of the integers from 0 to n

```
def sumIterative(n):  
    sum = 0  
    for i in range(n+1):  
        sum = sum + i  
    return sum  
num = sumIterative(8)  
print(num)           #What does this print
```

8. Consider the following piece of code

```
class Pointset(object):  
    def __init__(self, points):  
        '''(Pointset, list of Point objects) -> None  
        Initializes the Pointset with the list of  
        Points.'''  
        self.points = points
```

Which of the following can be used to create a Pointset object?

(I)

```
points=[Point(1,2), Point(2,1), Point(0,0)]  
nouveau_pointset=Pointset(points)
```

(II)

```
nouveau_pointset=Pointset( Point(1,2), Point(2,1), Point(0,0)
```

)

(III)

```
nouveau_pointset=Pointset([Point(0,0)])
```

- a. I
- b. II
- c. III
- d. I and II
- e. I and III

Answers : <https://bit.ly/2Gfz1yH> :)