Name:__________________________

Please indicate all output for each of the following. If there is an error, please indicate the specific syntax or runtime exception to the best of your ability. If a display of the memory is requested, please show work when tracing the memory, e.g., scratching through prior values or function calls. If no memory is used or no output is shown, write “None”. If there is a never ending loop, write “Infinite Loop” in the output.

1. (2 points)
   ```python
def func(n):
    x = 0
    for i in range(n):
        x += i
    return x
print(func(10))
```
   **Output:**

2. (2 points)
   ```python
class A:
    def __init__(self):
        self.a = 5

class B:
    def __init__(self):
        self.__a = A
        self.__b = 3
    def foo(self):
        print(self.__b + self.__a.a)
B().foo()
```
   **Output:**

3. (2 points)
   ```python
s = ‘Welcome’
for x in range(len(s), 0, -1):
    print(s[x], end=””)
print()
```
   **Output:**
4. (2 points)

```python
x = "CatDog"
y = ""
for a in x:
    y = a + y
z = ""
for i in range(0, len(y)−1, 2):
    z += y[i+1] + y[i]
if z not in x:
    print(z)
```

Output:

5. (2 points)

```python
class X:
    def __init__(self, x = 1):
        self.x = x
    def __mul__(self, other):
        return X(self.x / other.x)
    def __str__(self):
        return str(self.x)

x1 = X(2)
print(X()∗x1)
```

Output:

6. (1 point) Bonus.

```python
import math
class A:
    def __init__(self):
        self.x = 2.5
        self.y = 0.5
    def __float__(self):
        return self.x ** (1/self.y)
    def __int__(self):
        return math.ceil(float(self))

print(int(A()))
```

Output: