

Team: _____

Team Members:

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1 Interpreting Programs

What do the following programs print?

A.

```
def function(a, b, c):  
    n1 = a + b  
    n2 = n1 * c  
    return n2
```

```
a = 1  
b = 2  
c = 3  
print(function(c, a, b))
```

B.

```
def thing(mesg, num):  
    result = ""  
    for i in range(num):  
        result = result + mesg  
    return result
```

```
print(thing("Hi", 3))  
print(thing("Bye", 2))
```

C.

```
def f1(x):  
    return x + 1
```

```
def f2(y):  
    return f1(y * 2)
```

```
def f3(z):  
    return f2(z + 3)
```

```
num = f3(5)
```

2 Writing Functions

1. Write a function called "sphereVolume" which returns the volume of a sphere, given its radius. The volume is given by the equation $V = \frac{4}{3}\pi r^3$.

2. Write a function called "getClass" which takes the number of credits a student has and returns a string of their class, such as "freshman" or "sophomore". Each 30 credits you earn moves you to the next class.

3. Write a function called "getInt". The function should take the minimum and maximum values the user can put in. It should then ask the user to enter a number until they put in something between that range, and return it when they do.

4. Write a function called "printStart". It should take a list as the first parameter and a number, called "n" as the second parameter. It should print the first "n" items of the list to the screen.

5. Write a function called "filterNegatives". It should take a list of numbers as the parameter. It should return a new list of numbers with only the positive numbers from the original list. So if you gave it [1, -3, 5, -6, 8, 12, -2] then it would return back [1, 5, 8, 12].