

## WCC Python – Chapter 8 Functions – Lab

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### 1. Format Content

- a) Define a function *divy* with two parameters *dividend* and *divisor*.  
This function computes and prints the solution as seen in example output
- b) Call the function with two integer arguments: `divy(4,5)`

Output example

```
4/5 = 0.8
```

### 2. Print List

- a) Define a function *print\_list* with one parameter *elements*. This function is called with a list as an argument. This function formats and prints all values in the list as shown.
- b) Create a list of numbers called *nums*.  
Call the function *print\_list* with *nums* as an argument.
- c) Create a list of names called *names*  
Call the function *print\_list* with *names* as an argument.

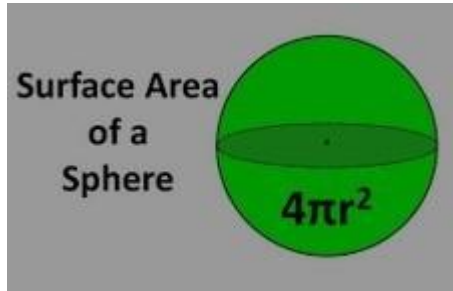
Output Example

```
5 & 10 & 15 &  
Ana & Omar & Kai & Jen &
```

Output Example (harder version)

```
5 & 10 & 15.  
Ana & Omar & Kai & Jen.
```

3. A function with a *return* value: the area of a sphere



a) Define a function `sphere_area` with one parameter `radius`.  
 This function **computes** and **returns** the area when called with the radius.

b) In the function body, create a constant `PI = 3.141592`

The formula for the area of a sphere is **area =  $4\pi r^2$**  Use that formula in your function to compute the area.

c) Outside of the function-

Use the print command to call the function with a radius of 5.

Use the print command to call the function with a radius of 10.

Output Example

```
314.1592
1256.6368
```

4. Name formatting I

a) Define a function `nameFormat` with parameters `first`, `middle` and `last`.  
 This function prints the first name, the middle initial and the last name using proper title format.

b) Call the `nameFormat` function with these **positional** arguments:  
`JAMES, earl, jones`

c) Call the `nameFormat` function with these **keyword** arguments:  
`ULYSSES, grant, Simpson`

In this case ULYSSES is the first name, Simpson is the middle, grant is the last.

Output Example

```
James E. Jones  
Ulysses S. Grant
```

## 5. Name formatting II

- a) Define a function `nameFormat` with parameter `first`, `last` and `middle` where `middle` is an **optional** parameter.

If all three names are provided return: *Last, First, M.*

If only first and last are provided return : *Last, First*

- b) Call the function with keyword arguments for the name: billy joel.  
c) Call the function with keyword arguments for the name: elton hercules john  
d) Print the results of the function calls.

Output Example

```
Joel, Billy John,  
Elton, H.
```