ICS4 Python Exercises – Functions

```python
# time for some function examples
# to help organize our code


# define functions first

def say_hello():
    print("Hello from a function")


def greet_me(name,n):
    # name,n are parameters
    for i in range(1,n+1):
        print("hello ",name)

def a_math_function(x,y,z):
    # answer is a local variable
    # it has scope only in this function
    answer = x**3 +2 * y**2 +z
    print("The answer is ",answer)
    print("----------------------")


# main module ---------------------
# program starts here


say_hello()
greet_me("Mr, M.",10)
# "Mr.M.", 10 are auguments

greet_me("class.",2)

a_math_function(4,6,-9)
```

Parameters or Arguments?
The terms *parameter* and *argument* can be used for the same thing: information that are passed into a function.
From a function's perspective:
A parameter is the variable listed inside the parentheses in the function definition.
An argument is the value that are sent to the function when it is called.

Function names should be [lowercase, with words separated by underscores](#) as necessary to improve readability.

Function Exercises

*All functions should be created and placed **in one module***

1. Create a function called output_month that receives an integer between 1 and 12 and outputs the corresponding month.

output_month(12);

The month is December.

2. Create a function called sum_it_up that receives two integers. The function will output the sum of the numbers between and including these numbers.

   sum_it_up(2,5);

The sum of the numbers between 2 and 5 is 14.

3. Create a function that calculates simple interest, given the principal, rate of interest (as a decimal), and the time in years. Use the formula I = PRT.

calc_simple_interest(1000, 0.05, 10);

The interest on a principal of $1000 at a rate of 0.05 for 10 years is $ 500.00 .