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Period 3

Lesson\_04 notes

* Functions are a way of organizing programs into smaller blocks of code with more specialized tasks.
* When we create a new function, it is called defining a function. We define a function in Python using the following format:

def functionName()

# function contents are tabbed in

* Function parameters allow us to do something similar by enabling us to pass data into the function from the outside. This makes it possible to perform the same function over and over again with different input data.

Parameters declared into a function inside the parentheses on the end of the function name, just like in the example below.

def functionName(<parameters>):

#statement 1

#statement 2

#statement 3, etc...

* We “call” a function by its name, a set of parentheses, and any data we are adding in as parameters.

functionName(<parameters>)

* To make data part of a function you have to tab in.
* On the other hand, return functions "return" or give back a value when called.
* This value can then be printed or used in another function or calculation. EX:

Def cube(side):

return (side\*\*3)

* The scope of a variable simply means the area(s) of the program in which the variable will be callable (usable). In other words, which statements, functions, and other files are able to use the variable.
* Global variables are declared at the beginning (top) of a program, and have no indentation. Therefore, they can be accessed anywhere in the class. The are said to have a “global” scope, because they are usable anywhere in the program.
* We break a complex task into smaller, specialized tasks in order to simplify the design process and make updates easier.
* EX: def add(one, two):

Print(one, ” + “ , two, “ = “, (one + two))

add(5, 5) output : 5 + 5 = 10

add(8, 9) output: 8 + 9 = 17

add(10, 20) output: 10 + 20 = 30

scope, in python, is determined by levels of indentation.