Declare function –

def function\_name(parameter):

Function body where we do what we want which is usually a vairable

Return variable

Example

Def get\_user\_radius():

User\_string = input(‘please enter a radius’)

Return float(user\_string)

R = get\_user\_radius()

Area = compute\_circle\_area(r)

Print(area)

Float has a return statement because it has an = in the code

Pass is similar to return. It gets you out without returning anything

To draw something on a canvas, you need to create a canvas and determine its size

To draw stars that are scattered dots:

Import random

Def draw\_stars(canvas, scene\_width, scene\_height, start\_size, num\_stars):

For I in range(num\_stars):

X = random.randint(0, scene\_width)

y = random.randint(scene\_height / 3, scene\_height)

Draw\_oval(canvas, x, y, x + star\_size, y + starsize, fill=”black”)

# won’t work if any place is a decimal

Return statement returns the value to the call point

Ctrl d will create numerous cursors and put all in quotes, brackets, etc

cse111-02 – 1130 is the chat where the code the teacher writes **should be** saved

X = range(6)

For n in range(4):

Print(n) -- prints 4 times. will start at 0 and end at 3

Step over is faster than step into

Step into will open a function from another file

Step over will go to the next line of your program

Continue will keep running the program on its own until it hits the next break point

Restart will restart the debugging

Red box will stop debugging

Call stack has a list of everything that is being called and by clicking on it will take you to where it was called from

Watch is where you can store a list of variables you want to keep an eye on the entire time (also shows up in variables)

Debug is helpful to find a logic error (you typed in 0.6 thunderhsock instead of thundershock)

Test driven development

From pytest import approx

Assert carl.approx(13.05, 0.1) -- to 0.1 precision

How to use the split string

<https://www.w3schools.com/python/ref_string_split.asp>

File – prefernces – keyboard shortcuts

Add cursors to line ends

Google vs code keyboard shortcuts

Import random

Random.choice will randomly choose from the list

You need to have the progrom see the def before the def is called

When debuging, rightclick on a variable, Copy as expression, you can now place the the variable and its reference

Help doc link in syllabus includes slideshows for class

Look up w3 schools for help

Wt lets you modify files

Json = javascript object notation

File.json will notice key value pairs

Can return multiple values of one type as a list and multiple values of different types as a dictionary