CPADS Reading Activity II

For each program, sketch what output you think the above program will produce. For references, the turtle graphics library functions are defined below.

fd(*t*, *length*) – moves turtle *t* forward *length* units

bk(*t*, *length*) – moves turtle *t* backward *length* units

lt(*t*, *angle*) – turns turtle *t* *angle* degrees to the left

rt(*t*, *angle*) – turns turtle *t* *angle* degrees to the right

pd(*t*) – starts drawing for turtle *t* (pen down)

pu(*t*) – stops drawing for turtle *t* (pen up)

**Program #1**

**# Load TurtleWorld functions**

**from TurtleWorld import \***

**def doSomething(t, height):**

**pu(t)**

**bk(t, height/4)**

**lt(t, 90)**

**bk(t, height/2)**

**pd(t)**

**fd(t, height)**

**rt(t, 90)**

**fd(t, height/2)**

**rt(t, 90)**

**fd(t, height)**

**pu(t)**

**bk(t, height/2)**

**rt(t, 90)**

**pd(t)**

**fd(t, height/2)**

**def main():**

**# Create TurtleWorld and Turtle objects**

**world = TurtleWorld()**

**turtle = Turtle()**

**height = 50**

**doSomething(turtle, height)**

**main()**

Assuming the turtle begins in the center of the screen, sketch what output you think the above program will produce?

**Program #2**

**def doSomething(val1, val2, val3):**

**return val1 + val2 + val3**

**def doSomethingElse(val1, val2):**

**return val1 / val2**

**def main():**

**# Define variables**

**num1 = 100**

**num2 = 200**

**num3 = 300**

**# Do computation**

**result1 = doSomething(num1, num2, num3)**

**result2 = doSomethingElse(result1, 3)**

**# Print output**

**print(result2)**

**main()**

In English, describe what the program above does. What value does the print statement output?