CS100 Fall 2017

Name		

CPADS Lab Activity #1

Possible instructions

pu(): Pen Up – does not draw while movingpd(): Pen Down – will draw when moving

fd(x): Forward – move forward **x** units ('-' moves backwards)

rt(x): Right turn – turn right x # of degrees (no movement or drawing)lt(x): Left turn – turn left x # of degrees (no movement or drawing)

Examples:

To move forward 1 unit: fd(1)
To move backward 2 units: fd(-2)
To turn right 60 degrees: rt(60)

1. Draw the output of the following code. Number the line segments in the order they are drawn and indicate the final position and orientation of the cursor.

pu()
fd(-1)
rt(90)
fd(1)

lt(90) pd()

fd(2) lt(90)

fd(2) lt(90)

fd(2)

lt(90)

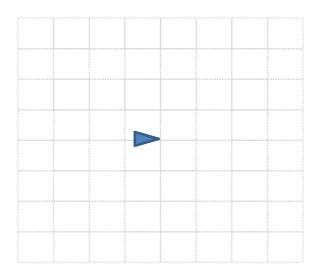
fd(2) lt(90)

pu()

fd(1) lt(90)

fd(1)

rt(90)



CS100 Fall 2017

Name			
Ivanic			

2. Create a **drawSquareFromCenter(x)** instruction that draws a square with sides of length **x** centered about the cursor's position. The cursor must be repositioned back to its starting location. Note: You may **NOT** assume that the pen is down when the function is called and you must pick the pen up at the end of the function.

CS100 Fall 2017

Name			
name.			

3. Write two sequences of instructions using **drawSquareFromCenter(x)** to construct the following layer cake figure *assuming the cursor begins as shown* to celebrate your success on problems 1 and 2! The layers are sizes 1, 2, 3, and 4 and centered on each other. You do not need to worry about where the cursor ends up once the figure is drawn.

Hint: Consider how the cursor must move in between drawing each layer.

