Name _____

CPADS Lab Activity #4

1. Open PyCharm making sure to select the Python 3.x interpreter. Create a new project named **CS100-Lab4**. Right click on **CS100-Lab4** in the left sidebar and select **New->Python File**. Name the file **layerCake.py**. Type the following code **exactly** as shown *copying* the **drawSquareFromCenter()** function code from **pinwheel.py** in **CS100-Lab3**

```
import turtle

# COPY THE CODE FOR THIS FUNCTION FROM LAB 3 HERE
# Function to draw a square about the current position
#    First argument is turtle to draw with
#    Second argument is size of square sides
def drawSquareFromCenter(t,size):...

def main():
    # Create turtle named bob
    bob = turtle.Turtle()

    # Get user input
    size1 = int(input('Enter size for the top square: '))

    # Draw graphics
    drawSquareFromCenter(bob,size1)


    # Press any key to exit
    input()

main()
```

   The program should prompt the user to enter a size for the first square and draw it centered about the origin.

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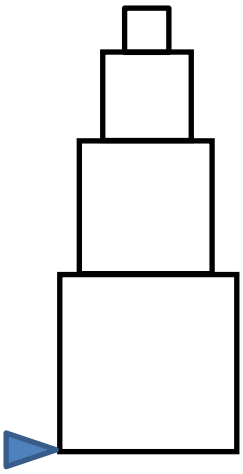
2. Write code using **drawSquareFromCenter(x)** to construct the following layer cake figure *assuming the cursor begins as shown*. The top block should be the size entered by the user, the next block should be twice as big, the next block should be three times as big, and the bottom block should be four times as big as the top block. All blocks should be centered on each other and the cursor should be returned to its original position *using computations*. **THERE SHOULD BE NO COMPUTATIONS IN DRAWING COMMANDS, use intermediate variables for calculated values.**

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



Upload your finished program (**ONLY THE .py file)** to Marmoset
https://cs.ycp.edu/marmoset