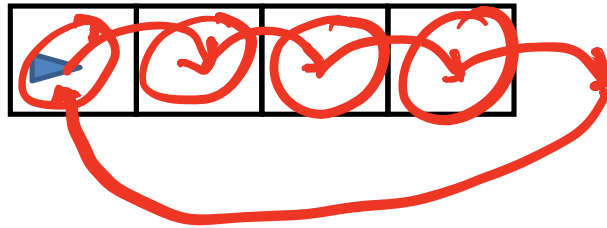


Name _____

CPADS Lab Activity #7

1. Write a strategy for a function called **Row(*n*)** to construct a row of *n* boxes of size 1 using the **drawSquareFromCenter(*x*)** and **repeat(*x*)** commands. You **MUST** return to the cursor to the original starting position once the boxes have been drawn. Note: The example below shows what the figure would look like for **Row(4)**.



repeat(n)
drawSquareFromCenter(1)
forward(1)
forward(-n*1)

Name _____

1. (Challenge) Use the **Row(n)** (from problem 2), and the **repeat(x)** commands to write a strategy to draw a pyramid with the base row having **k** boxes and each subsequent row having one fewer boxes until the top row only contains one box as shown in the figure below. The rows are all centered on each other. Figure out how to return the cursor back to its original position relative to the number of rows that were drawn.

Hint: Consider how the number of boxes in each row can be related to the value of the loop counter.

numBoxesInRow = k

repeat(k)

Row(numBoxesInRow)
move to next start
(up size, over $\frac{\text{size}}{2}$)

decrement numBoxesInRow

return to start
(down $k \times \text{size}$, back $k \times \frac{\text{size}}{2}$)

