# Objective

You will explore recursive method calls. You will identify and implement the three parts of a recursive method:

1. *base case* – used to halt recursive functions.
2. *single step* – the part of the method that performs the work for that particular iteration. This part may include multiple lines of code.
3. *recursive call* – a call to itself with parameters that have changed

You will identify the effects of double and higher order recursion.

## Topics: recursion

# Instructions

For this lab, you will be working interactively as you explore *recursive* methods together in class. You will need to open the Processing sketch, and you will also need a piece of paper handy. Please follow along with the instructor.

# Questions

What happens if a method calls itself?

How can you prevent the endless repetition?

What happens when the recursive call is made more than once in the method body?

# Challenge

Modify the Recursive Circles sketch to make the recursive call four times, vary the location along the x and y axis. What kind of patterns can you make?