# Computer 8 Lab 10 (Chapter 13)

For this lab you will work with recursion and will have a total of two problems. If they are done correctly they will together be less than 1 page of coding

## Problem 1:

Create a class with a method that calls itself to calculate the number of ways a person could climb a staircase of *n* steps if they can take 1 step at a time, 3 steps at a time, 5 steps at a time, or any combination thereof. Allow the user to specify the number of steps *n.* Assume at the top of the stairs there is a flat surface so it doesn't matter if the user oversteps on their last step.

Although this problem may seem hard at first think about how you could solve the problem by asking the same problem with one less step on the staircase.

## Problem 2:

Create a class that has a method to determine if an array entered by the user is a palindrome. This must be done using recursion. A palindrome word is one in which it spells the same things backwards as it does forward.