

# Homework 4, CSCE 240, Fall 2014

## Overview

This is an exercise in recursion.

A standard dominoes game has 91 tiles, one for all the combinations of  $(a, b)$  for  $0 \leq a, b, \leq 12$ .

One standard version of a game of dominoes is as follows. Each player is “dealt” twelve dominoes. Starting with the “double  $n$ ” domino, players place dominoes on end so that the adjacent halves have the same number of dots.

For example, one might have a chain of dominoes:

$$(6, 6)(6, 4)(4, 2)(2, 10)$$

which would then continue as long as a player had dominoes in her hand that could be played.

## This Assignment

You initialize the game by creating a **vector** of **Domino** class instances that has all the dominoes in it. You will then “deal” a second vector with 12 randomly chosen dominoes (no repeats).

For each of the 12 possible starting values, find the longest chain of dominoes that can be made using the dominos in your hand.

For each of the 12 possible starting values, you should output the “new max” sequence every time you get a sequence of equal or greater length.