P3 Challenge Problem

When you submit your solution for grading it must be done through the Course Management System (CMS). The deadline is the same as for P3. You must work by yourself. NO PARTNERS. The problem is scored either 0, 1, or 2 for insufficient, reasonable, or excellent work. We'll record your challenge problem scores over the semester and if the record at the end warrants, we will move your grade up half a notch, i.e., B to B+, B+ to A-. You are allowed to discuss background issues with others, but the programs you submit must be your own work. If something comes up and you are unclear about our Academic Integrity Policy (posted on the course website) contact a member of the course staff immediately.

Implement the following function:

```
function DesignerFloor(m,n,c1,c2,c3)
  % Post:
  %  Draws an m-by-n octagon-square tessellation
  %  The octagons have sides equal to one and the upper left
  %  octagon is centered at (0,0) and has color specified by c1.
  %  Alternate octagons have color specified by c2.
  %  The squares have color specified by c3
  %
  % Pre:
  %  m and n are positive integers.
  %  c1, c2, and c3 each have one of the color values 'r', 'g', 'b', 'k',
  %  'y', 'w', 'm'
```

Attached is the output produced by DesignerFloor(6,8,'m','g','r'). Submit DesignerFloor.m to CMS. It can contain functions that are used by DesignerFloor.
A 6-by-8 octagon-square tessellation.