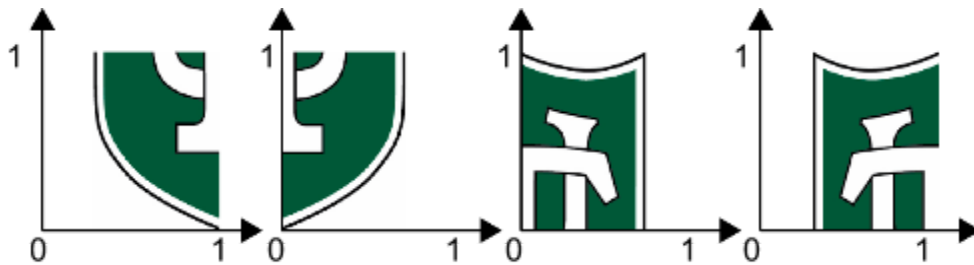# Assignment 2
Vector, Matrices, and Transformations (80 grad, 80 ugrad)

Template code to get you started can be downloaded from:
https://bitbucket.org/summateaching/assignment_2.git

1. (40 pts) For this problem, you'll be modifying executable: puzzle
   I've provided the vertices of 4 squares of unit length, with origin at (0,0), and each
   textured with the tulane shield.

   vec3 square[16] contains these squares as GL_TRIANGLE_STRIP with a scale and
   rotation **ABOUT ITS CENTER (and to make things more interesting, I moved it
   back).** The actual transformations are unknown but are from this list:

● Rotate by -90 degrees ● Rotate by 180 degrees ● Rotate by 45 degrees ● No Rotation	● Scale by 0.5 ● Scale by 1.25 ● Scale by 0.25 ● No Scale

   *Produce this image only using matrices to undo the transformations and align the
   boxes accordingly. DO NOT CHANGE THE ORTHO MATRIX OR SQUARE
   VERTICES.*

2. (40 pts) For this problem, you'll be modifying executable: particle
   The template code provides the start of a particle system. Adjust the code so:
   a. The particles are emitted randomly.
   b. The particles bounce when the hit the extents of the window
   c. The particles lose some velocity when the bounce
   d. Particles that are "dead" (0 velocity) are removed from the system