# CS130 Winter 2013 Homework 3 

## Name:

## Student ID:



1. Find a sequence of transformation matrices (translation, rotation, and scaling matrices) that map the triangle ABC to the triangle $\mathrm{A}^{\prime} \mathrm{B}^{\prime} \mathrm{C}^{\prime}$.
2. What kinds of transformations can a rigid body undergo?
3. List all the viewing transformations in the graphics pipeline.
4. The z-buffer approach to rendering A) selects which fragment to draw based on its depth B) orders triangles from back to front C) orders triangles based on the average z-values of their vertices $D$ ) selects which vertices to clip based on their z-values E) B and C only
5. (T/F) The viewport transformation maps from normalized device coordinates to screen space.
6. (T/F) Given any matrices $M_{1}, M_{2}$, and $M_{3}, M_{3} M_{2} M_{1}=M_{1} M_{2} M_{3}$.
