

**College Geometry MTG4212 Fall 2008**  
**Homework 5**  
**Due Wednesday, October 15, 2008**

(1) Calculate the following compositions of rigid motions. All of these rigid motions refer to the figure below, in which you should assume that all the triangles that appear to be equilateral really are equilateral.

(a)  $R_{D,2\pi/3} \circ R_{G,-2\pi/3}$

(b)  $R_{F,2\pi/3} \circ R_{D,2\pi/3}$

(c)  $R_{A,\pi} \circ R_{F,\pi/3}$

(d)  $R_{D,\pi} \circ R_{F,\pi}$

(e)  $\tau_{FA} \circ R_{G,2\pi/3}$

(f)  $R_{D,\pi} \circ \tau_{FG}$

(g)  $\tau_{GB} \circ R_{E,2\pi/3}$

(h)  $R_{F,2\pi/3} \circ \tau_{AE} \circ R_{D,-2\pi/3}$

(i)  $R_{D,\pi/3} \circ \rho_{FG}$