AME 538

Homework 11

Due: Wednesday, 25 September 2002, in class

1. Following the procedure using rotations outlined in the course notes, give a detailed verification that the most general form of the viscous stress tensor for an isotropic Newtonian fluid is

$$\tau_{ij} = 2\mu \partial_{(i} v_{j)} + \lambda \partial_k v_k \delta_{ij}.$$