CE 3305 Engineering Fluid Mechanics
Exercise Set 2
Summer 2015 – GERMANY

1. (Problem 2.13 pg 55) Calculate the pressure increase (Δp) required to reduce the volume of a mass of water by 2-percent (2 %)

2. (Problem 2.35 pg 56) Figure 1 is a schematic of a sliding plate viscometer used to measure the viscosity of a fluid. The top plate is moving to the right with a constant velocity of 10 meters per second in response to a force of 3 Newtons. What is the viscosity of the fluid?[1]
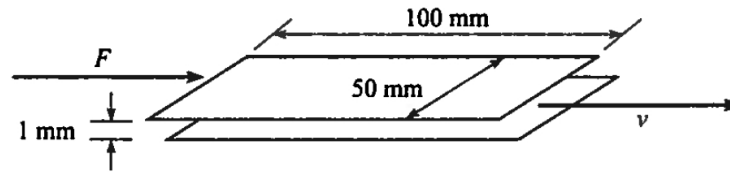

Figure 1: Sliding Plate Viscometer

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[1]Assume a linear velocity distribution.