**Chemical Engineering 374**

**Reading Questions 4—Chapter 3.2-3.6**

**Name** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. What are three types of pressure measurement devices?
2. What height of a column of mercury, and water, can the atmosphere support? How do the ratio of these heights compare to the ratio of the densities of the two liquids?
3. What are three key points in analysing the properties of manometers?
4. How does use of the centroid simplify calculation of pressure forces on submerged objects?
5. When analysing surface forces for systems open to the atmosphere, what is a key simplification?
6. How is the wieght of a floating object related to the amount of liquid it displaces? This is key in solving buoyancy problems.