

Physics 426 - Fluid Mechanics

Reading: Week 1

Q1: What does density (tend) to depend on?

The density of a fluid is dependent on temperature and pressure. This is because of the equation of state of a fluid.

Q2: What is pressure?

Pressure is the force exerted by molecules on one another and on the boundaries of whatever is containing the fluid. If a surface is put in a fluid the pressure exerts a force normal to the contour of the surface. Pressure does not have a direction, as it is uniform in all directions.

Q3: How does pressure support water columns?

Q4: Kinematics: How does advection change the Eulerian perception of a quantity?