

ASSIGNMENT

1. At what velocity does air and water flow convert from laminar to transitional in a 5 cm diameter pipe at 20°C?
2. A Pitot tube is being used to measure maximum velocity for water flow in a pipe. The tube is positioned with the inlet to the inner tube along the center axis of the pipe. A U-tube manometer gives a reading of 20 mm Hg. Calculate the velocity of water, assuming a tube coefficient of 1.0. The density of mercury is 13,600 kg/m³.