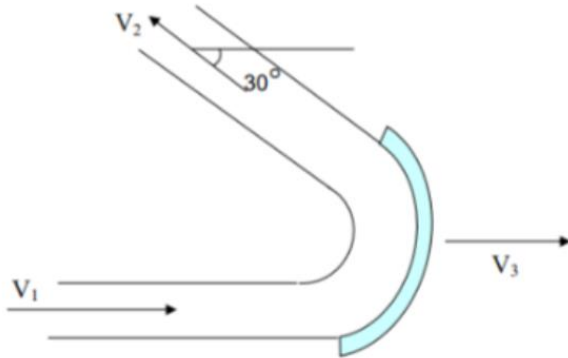


CE371 HOMEWORK-5 (DUE ON 11.12.2019)

Q1) Determine the force components due to the water jet on the moving vane which is lying on a horizontal plane with a velocity V_3 of 20 m/s in x-direction. $A_1=A_2=0.05 \text{ m}^2$, $\rho=1000 \text{ kg/m}^3$, $V_1=40 \text{ m/s}$



Q2) A sheet of water of uniform thickness flows from the device shown in Fig. P5.59. The water enters vertically through the inlet pipe and exits horizontally with a speed that varies linearly from 0 to 10 m/s along the 0.2 m length of the slit. Determine the y component of anchoring force necessary to hold this device stationary. ($L=0.2 \text{ m}$, $u=10 \text{ m/s}$)

