

September 23, 2012

NAME

Fluids-ID

Quiz 3. A 4-m long curved gate is located in the side of a reservoir containing water as shown in Figure (a). Determine (a) the magnitude of the horizontal and vertical components of the force of water on the gate, F_H and F_V , respectively, and (b) the magnitude F_R and angle θ of the resultant force as shown in Figure (b). Use $\gamma = 9.8 \text{ kN/m}^3$ for water.

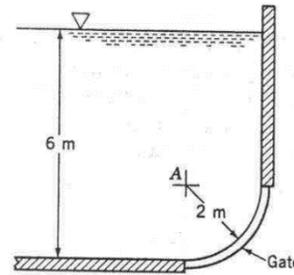


Figure (a)

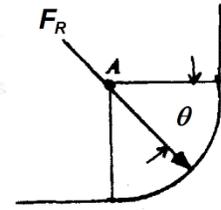


Figure (b)

Note: Attendance (+2 points), Format (+1 point)