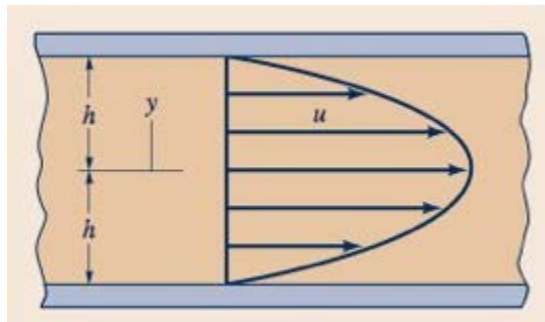


NAME

Fluids-ID

Quiz 1. The velocity distribution for the flow of a Newtonian fluid between two fixed wide, parallel plates is given by equation shown below where V is the mean velocity. The fluid has a viscosity of $0.04 \text{ lb}\cdot\text{s}/\text{ft}^2$. Also $V=2\text{ft}/\text{s}$ and $h=1/60 \text{ ft}$. Determine the shear stress acting on the bottom wall ($y=-h$).

$$u(y) = \frac{3V}{2} \left[1 - \left(\frac{y}{h} \right)^2 \right]$$



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