

September 9, 2013

NAME

Fluids-ID

Quiz 1.

In the figure shown at the right, the fluid is glycerin at 20°C ( $\mu = 1.5 \text{ N}\cdot\text{s}/\text{m}^2$ ), the width between plates is  $L = 6 \text{ mm}$  and the velocity of upper plate is  $V=5.5 \text{ m/s}$ . What is shear stress (in Pa) on the upper plate? The fluid velocity profile between the plates is given as

$$u(y) = \frac{V}{L} \cdot y$$

