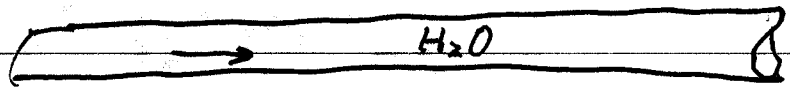
MYO 3.4



$a_s = 30\ m/s^2$

$\frac{dp}{ds} = ?$

Starting with Eq. (3.4)

$$-\gamma \sin\theta - \frac{\partial p}{\partial s} = \rho a_s$$

$\gamma \sin\theta = 0$

$\theta = 0$

$$\frac{\partial p}{\partial s} = -\rho a_s = -\left(1000 \frac{kg}{m^3}\right)\left(30\ m/s^2\right)$$

$$\boxed{\frac{\partial p}{\partial s} = -30{,}000\ Pa/m}$$