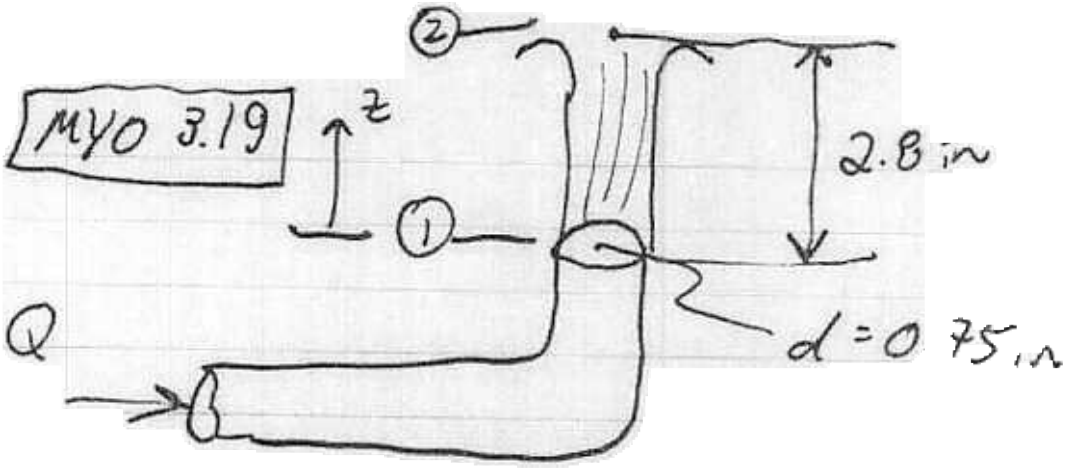

$Q \rightarrow ft^3/s$

Bernoulli

$$+ \tfrac{1}{2}\rho V_1^2 + \gamma z_1 = P_2 + \tfrac{1}{2}\rho V_2^2 + \gamma z_2$$

P_2 atmosphere pressure

$$\tfrac{1}{2}\rho V_1^2 + \gamma z_1 = \tfrac{1}{2}\rho V_2^2 + \gamma z_2$$

$V_2 = 0$, $z_1 = 0$

$$V_1 = \sqrt{\frac{2\gamma z_2}{\rho}} = \sqrt{\frac{2\rho g z_2}{\rho}} = \sqrt{2 g z_2}$$

$$= \sqrt{(2)(32.2\ ft/s^2)\left(\frac{2.8}{12}\ ft\right)}$$

$V_1 = 3.9\ ft/s$

$$Q = \left(\frac{\pi d^2}{4}\right) V = \frac{\pi (.75/12)^2}{4} (3.9\ ft/s) = 0.0119 \frac{ft^3}{s}$$