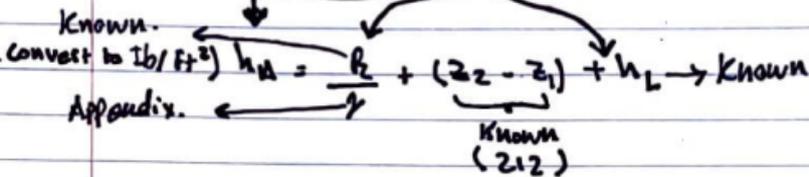


Ch. 7 - 42 ::

~~XXXXXXXXXX~~

$$z_1 + \overbrace{h_A} - h_L = \overbrace{\frac{P_2}{\rho}} + z_2$$



~~XXXXXX~~

$$h_A = \frac{4320}{62.4} + 212 + 15.5 = 296.73$$

$$P_A = (h_A)(\rho)(Q) = (296.73)(62.4)(40)$$

$$P_A = (296.73)(62.4)(0.089) = 1647.91$$

$$P_A = 1647.91 \left(\frac{1}{550} \right) = 2.99 \approx 3 \text{ hp}$$

$\hookrightarrow \text{gal/min} \rightarrow \text{ft}^3/\text{s}$

\downarrow

$$40 / 448.83$$

$$Q = 0.089 \text{ ft}^3/\text{s}$$