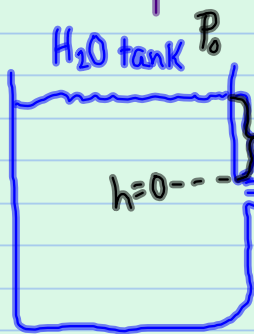


Ex 9.8 p278



- $0.017 \frac{m}{s}$ $4.7 \times 10^{-4} \frac{m}{s}$
 - $81 \frac{g}{s}$ $766 s$

#41, 40 12.8 min 42. in class

P_0 constant

before hole after

$$\frac{1}{2} \rho v_i^2 + \rho g h_i = \frac{1}{2} \rho v_f^2 + \rho g h_f$$

$$g h_i = \frac{1}{2} v_f^2$$

$$v_f = \sqrt{2 g h_i}$$

$$= \sqrt{2(9.8)(5)}$$

$$= 3.13 \frac{m}{s}$$

Bernoulli's eq.

$$P_0 + \frac{1}{2} \rho v_i^2 + \rho g h_i$$

atmospheric

$$P_0 + \frac{1}{2} \rho v_f^2 + \rho g h_f$$

conservation of pressure