

## Supplementary Problems - 1

- 3.54 Figure 3.23 shows a closed tank that contains gasoline floating on water. Calculate the air pressure above the gasoline.

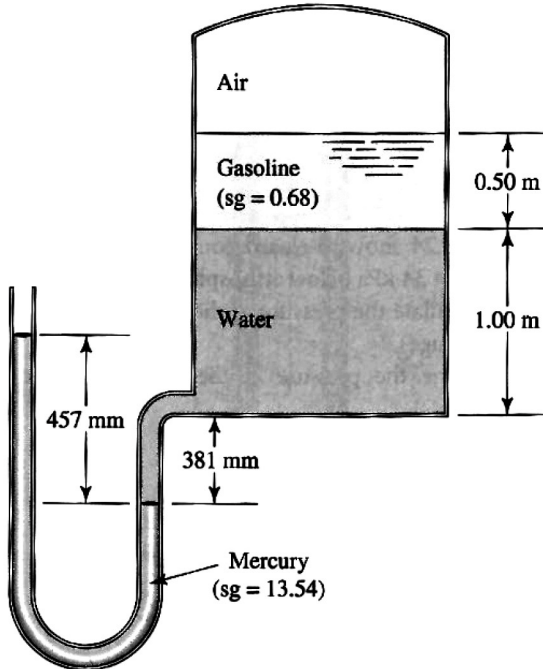


FIGURE 3.23 Problem 3.54.

- 6.77 Oil with a specific weight of  $8.64 \text{ kN/m}^3$  flows from A to B through the special fabricated system shown in Fig. 6.31. Calculate the volume flow rate of oil.

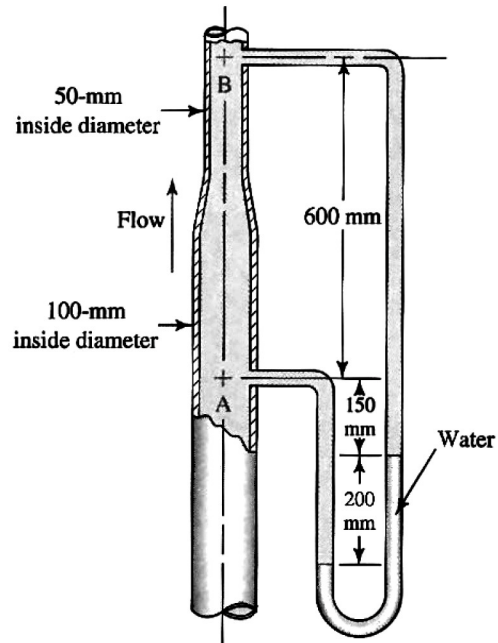


FIGURE 6.31

- 3.69 Figure 3.33 shows a manometer being used to indicate the difference in pressure between two points in a pipe. Calculate  $(p_A - p_B)$ .

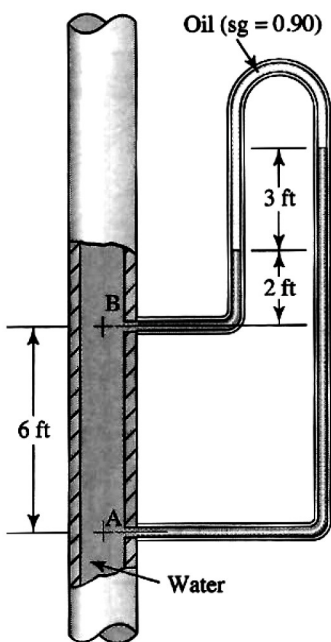


FIGURE 3.33 Problem 3.69.

- 6.79 Oil with a specific gravity of 0.90 is flowing downward through the venturi meter shown in Fig. 6.33. If the manometer deflection  $h$  is 28 in, calculate the volume flow rate of oil.

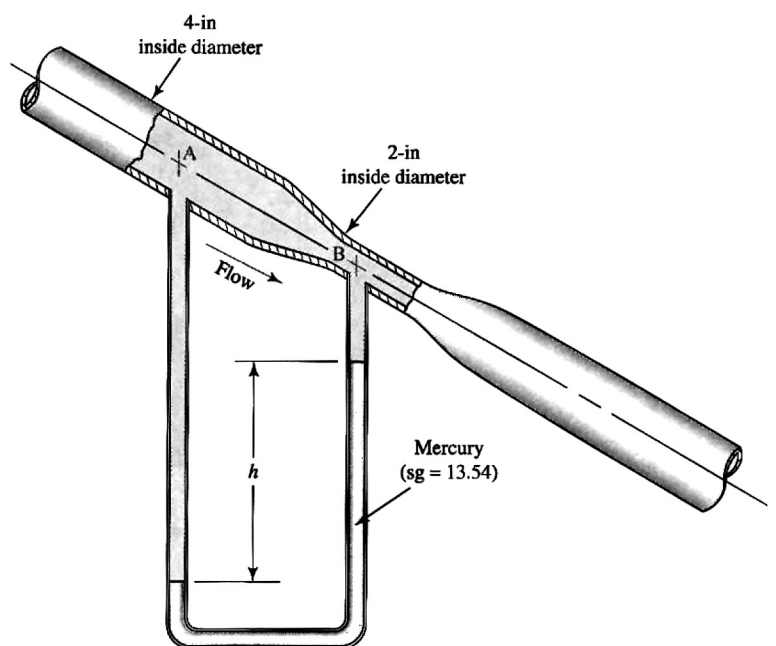


FIGURE 6.33