

14.92. The horizontal pipe shown in Fig. 14.45 has a cross-sectional area of 40.0 cm^2 at the wider portions and 10.0 cm^2 at the constriction. Water is flowing in the pipe, and the discharge from the pipe is $6.00 \times 10^{-3} \text{ m}^3/\text{s}$ (6.00 L/s). Find (a) the flow speeds at the wide and the narrow portions; (b) the pressure difference between these portions; (c) the difference in height between the mercury columns in the U-shaped tube.

Figure 14.45 Problem 14.92.

