

Problem	Answers
1	$Q_1=4452.76 \text{ cm}^3/\text{s}$ , $Q_2=4385.7 \text{ cm}^3/\text{s}$ , $Q_3=4402 \text{ cm}^3/\text{s}$ , $u_Q=\pm 482 \text{ cm}^3/\text{s}$
2	$\Delta P=122846 \text{ kPa}$ , $\Delta P_{\text{loss}}=68659 \text{ kPa}$
3	$\beta=0.55$
4	$\beta=0.80$
5	Similar to problems 3, 4
6	$Q=48.4 \text{ l/s}$
7	$\dot{m} = 0.067 \text{ kg/s}$