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NUCL 355 Experiment # 2
Pre-lab problem

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(1) Water at 20 C flows through a smooth pipe of diameter 2.5 cm and length 1.5 m from a reservoir to the atmosphere. Assuming the entrance loss coefficient, a) K = 0.5 and b) K = 0.8, find: 1) the pressure drop in the pipe, 2) friction factor and 3) the water level h in the reservoir that must be maintained if the discharge rates are 2, 9 and 20 liter/minute. Identify whether the flow type is laminar or turbulent for each discharge rate.