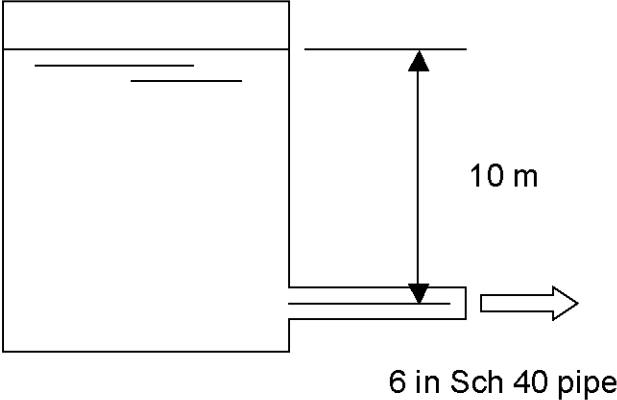
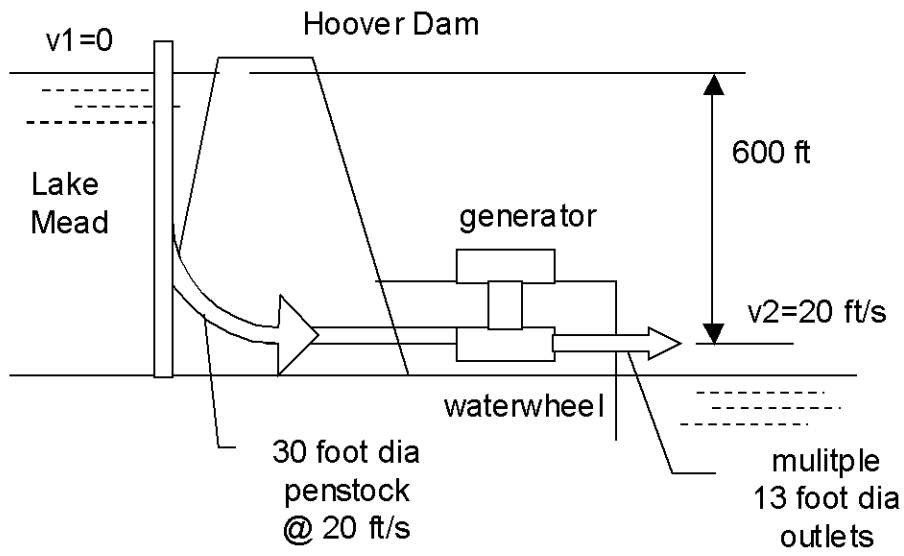


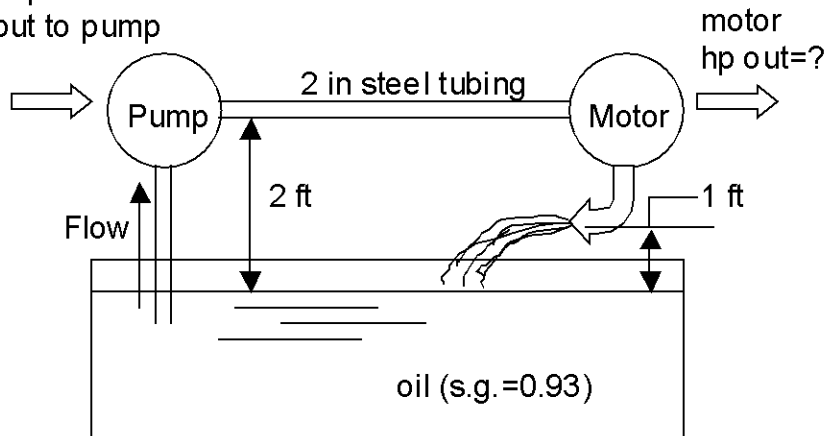
Problem 7.4





Pump driving a hydraulic wheel motor (open loop)

20 hp shaft
input to pump



Given:

1. Fluid is oil (s.g. = 0.93)
2. Volume Flow Rate is 150 gpm
3. Pump Efficiency = 80%
4. Motor Efficiency = 75%
5. Energy loss in all piping = 10 lb-ft/lb

Find: Shaft horsepower coming out of hydraulic motor.