SHEET 4

1- (Example 7-5)
A hydraulic motor has a 82-cm^3 (0.082-L) volumetric displacement. If it has a pressure rating of 70 bars, and it receives oil from a 0.0006 m^3/s theoretical flow rate, find the motor's
   a. Speed
   b. Theoretical torque
   c. Theoretical power

2- (Example 7-6)
A hydraulic motor has a displacement of 164 cm^3 and operates with a pressure of 70 bars and a speed of 2000 rpm. If the actual flow-rate consumed by the motor is 0.006 m^3/s and the actual torque delivered by the motor is 170 N.m, find
   a. Volumetric efficiency
   b. Mechanical efficiency
   c. Overall efficiency
   d. The actual power (kW) delivered by the motor

3- (Example 7-7)
A hydrostatic transmission, operating at 1000-psi pressure, has the following characteristics:

Pump	**Motor**
V_D= 82-cm^3	V_D= ?
η_v = 82%	η_v = 92%
η_m = 88%	η_m = 90%
N = 500 rpm	N = 400 rpm

Find the
   a. Displacement of the motor
   b. Motor output torque