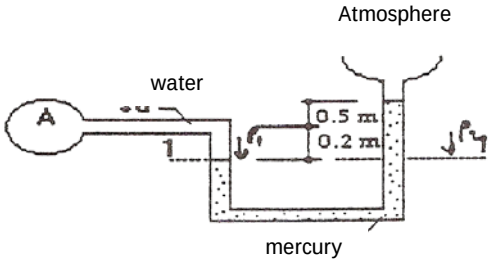
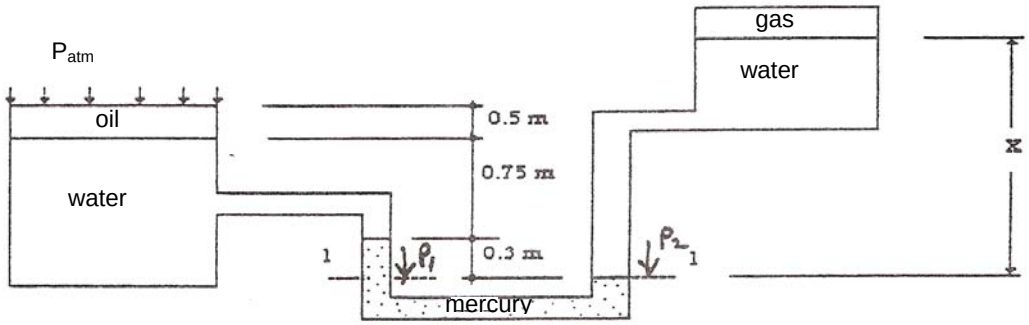
Exercise 1 : Compute the absolute and relative pressure values at the point "A" of the given manometer.

(γ_{water}=1.0 t/m³, $\gamma_{mercury}$=13.6 t/m³, P_{atm}=1.0 kg_f/cm^2)



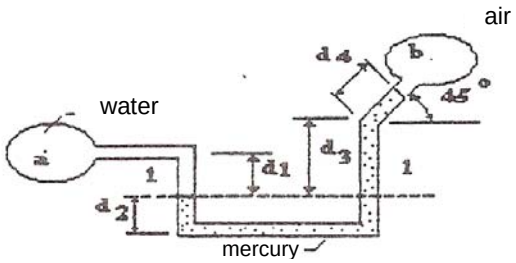
Exercise 2 : The absolute pressure of the gas closed in the system is P_{gas}=4 t/m². Compute the vertical distance indicated as "X".

(γ_{oil}=0.8 t/m³, P_{atm}=1.0 kg_f/cm^2)



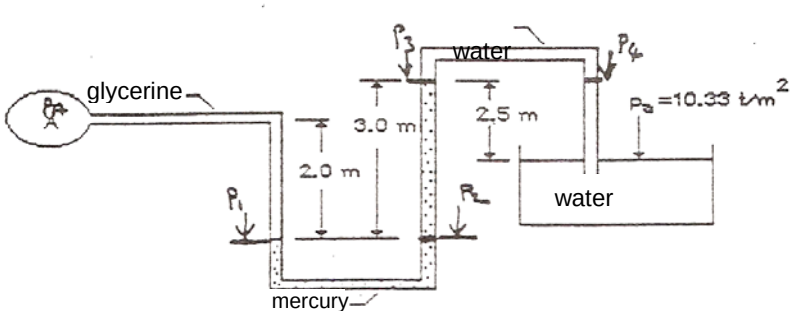
Exercise 3 : Compute the pressure difference between the points "a" and "b" of the manometer given below.

(d_1=30 cm, d_3=45 cm, d_4=20 cm, $\gamma_{mercury}$=13.6 t/m³)



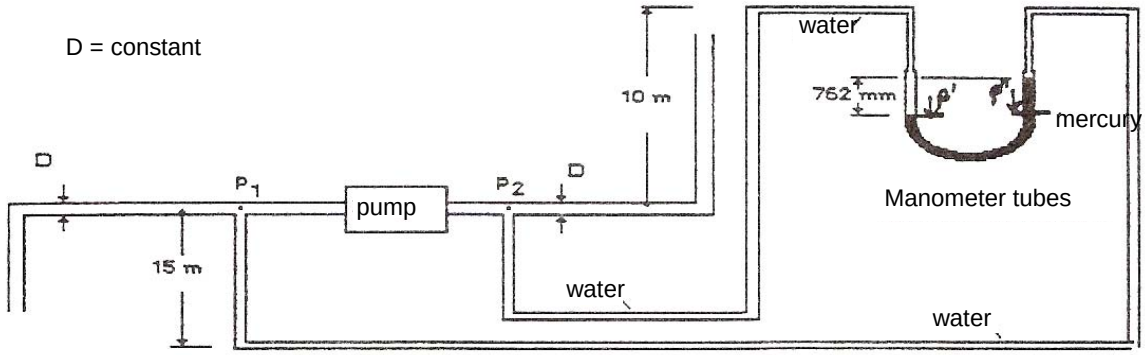
Exercise 4 : Compute the absolute pressure value at the point "A".

(P_{atm}=10.33 t/m², γ_{water}=1.0 t/m³, $\gamma_{mercury}$=13.56 t/m³, $\gamma_{glycerine}$=1.26 t/m³)



Exercise 5 : The pressure difference (P_1-P_2), in the system shown in the figure below, caused by the pump is measured by a manometer system. The fluid in the manometer is mercury while other parts of the system are filled with water. Determine the pressure difference.

(γ_{water} = 1000 kg_f/m^3, $\gamma_{mercury}$ = 13560 kg_f/m^3)



Exercise 6 : Compute the pressure of the air closed in the tank given below.

(γ_{water} = 1.0 t/m^3, $\gamma_{mercury}$ = 13.56 t/m^3)