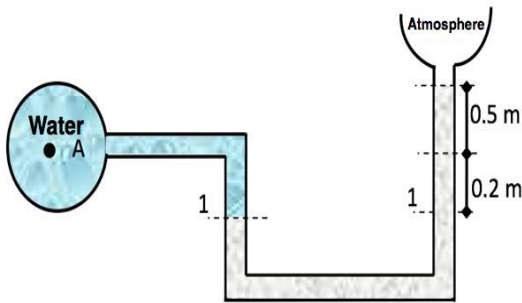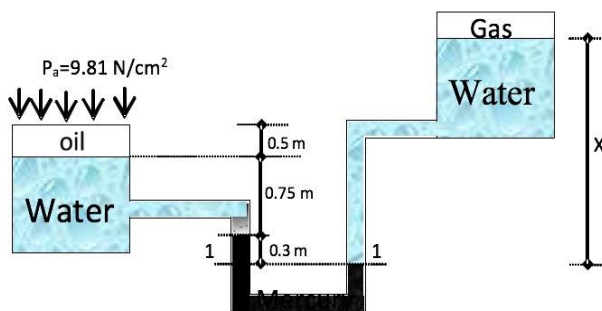## Manometers

❖ *Unless mentioned, the following values of fluid characteristics can be used when ever necesarry in solving the questions.* γ_{water}= **1 t/m³**, $\gamma_{mercury}$= **13.6 t/m³** *ve* p_{atm}=**1 kg$_f$ /cm²** *are used*.
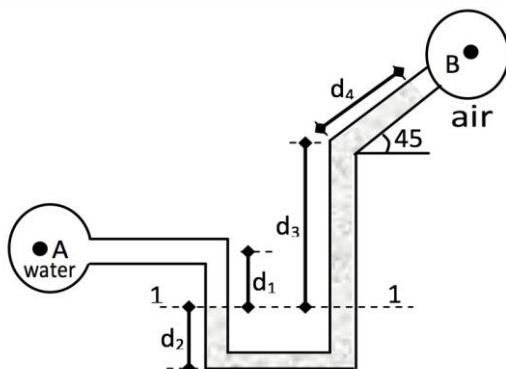
Question 1: Find the absolute and gage pressures at the point A in the U manometer given below. End of the tube is open to atmosphere.

Question 2: In the manometer system given below, the absolute pressure of the enclosed gas is P_{gaz} = 39.24 kN/m². Find the horizontal distance X. ($\gamma_{yağ}$=7.85 kN/m³).
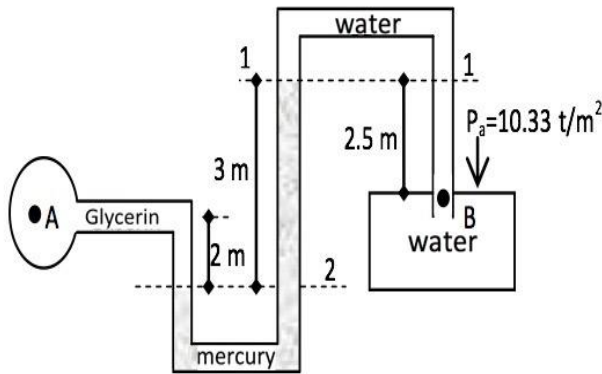

Question 3: For the given values of d_1=30 cm, d_3=45 cm, d_4=20 cm, find the pressure difference between points A and B given in the drawing below.

Question 4: Taking into consideration the manometer system shown below find the absolute pressure at point A. (p_{atm}=101.34 kN/m², $\gamma_{glycerin}$=12.36 kN /m³, γ_{water}=9.81kN /m³)
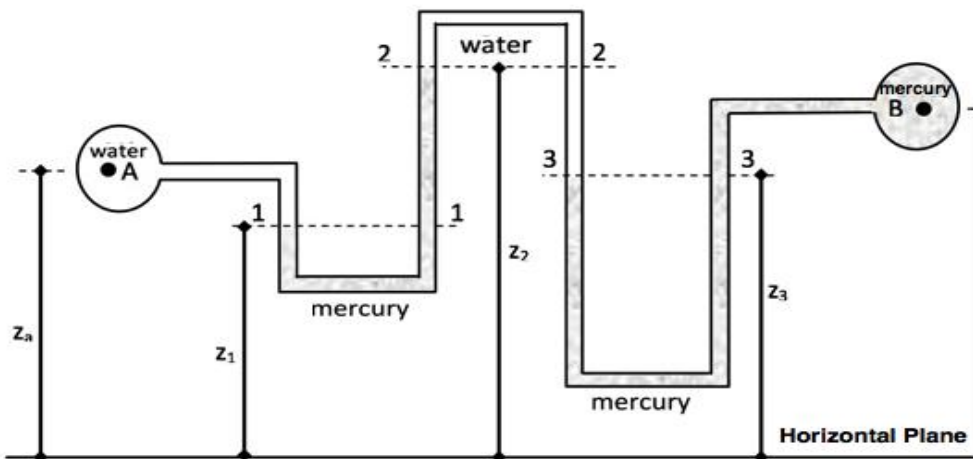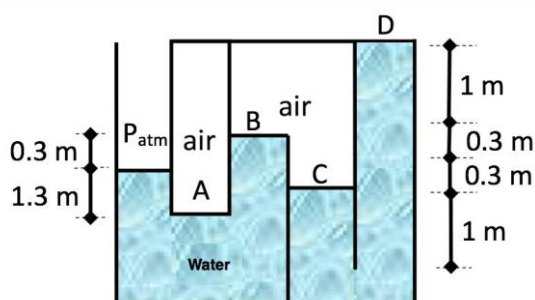
Manometers

Question 5: taking into consideration the manometer system shown below, find the pressure difference $P_A - P_B$.

(z_a=1.6 m, z_1=0.7 m, z_2=2.1 m, z_3=0.9 m, z_b=1.8 m)


Question 6: Find the gage pressures at the points A, B, C and D for the composite container system given below. (The fluid is water and Specific weight of air is neglected).

Manometers

Question 7: A pressure increase can be seen due to the pump in the manometer system given below. The fluid in the manometer is mercury. Other parts of the manometer are filled with water. Find the pressure difference P_1-P_2.
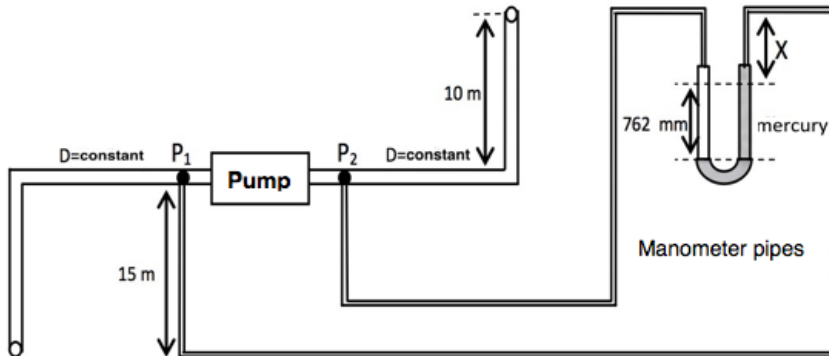
Question 8: Find the air pressure inside the tank.