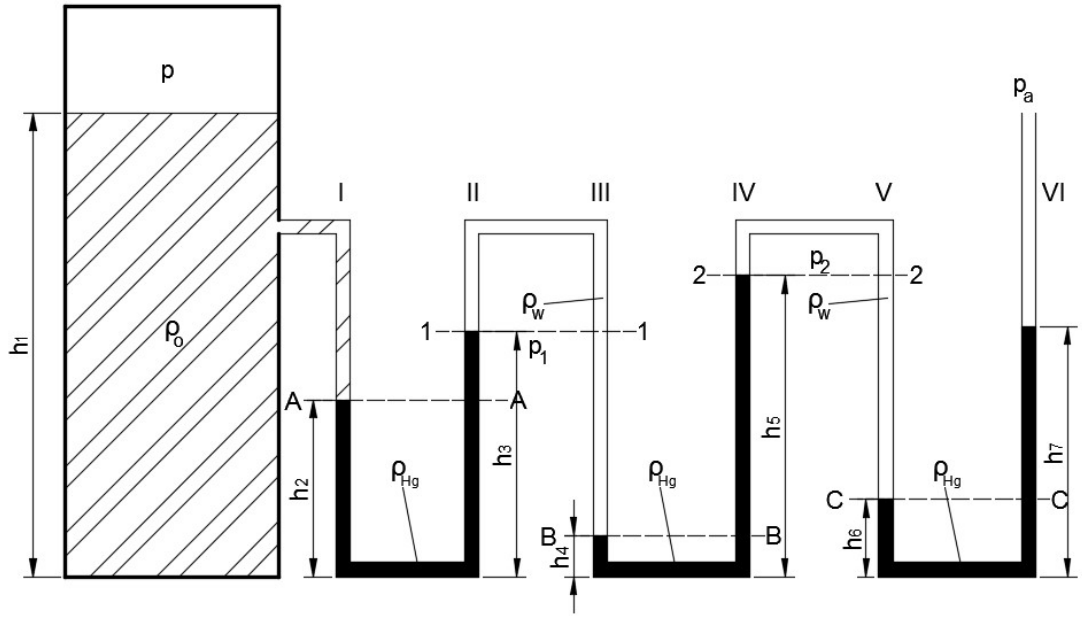
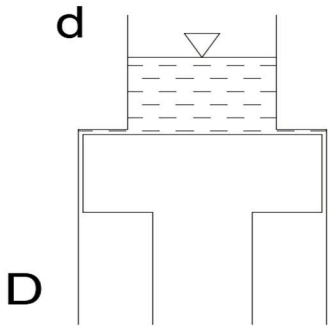
CLASSES 6

**Task 3.4.** Based on the indications of liquid pressure gauges connected in series to a tank filled with oil, determine the pressure difference p-pa for the data:$\rho_0$ = 860 kg/m$^3$ = 0,86 $\rho_w$ $\rho_w$ = 1000 kg/m$^3$, $\rho_{Hg}$ = 13600 kg/m$^3$ =13,3 $\rho_w$ ;$h_1$ = 5.0 m, $h_2$ = 2.0 m, $h_3$ = 2.5 m, $h_4$ = 0.5 m, $h_5$ = 3.0 m, $h_6$ = 1.0 m, $h_7$ = 2.5m,




**Task 3.5.** An open tank with a mass of m = 16 kg, consists of two cylindrical sections with diameters d = 0.3 m, D = 0.5 m, rests on a stationary piston. How much water do you need to pour into the upper part of the tank so that it rises above the piston? Consider the friction of the cylinder against the piston, with friction equal to half the weight of the tank.




**Task 3.6.** A square damper with a side of 4 was placed in the water-filled tank. In the center of the damper a 1 m square hole was cut out. Calculate the pressure on this damper knowing that the top edge of the damper is at the water level.