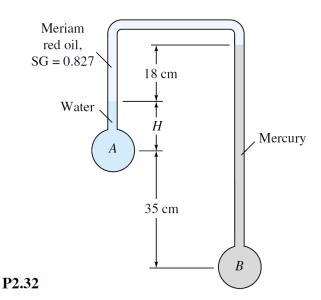


## Øving 3: Høst 2014

White 2.36 i 7. utgave (2.32 i 6. utgave)

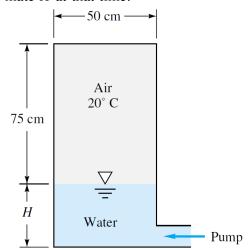
**P2.32** For the inverted manometer of Fig. P2.32, all fluids are at  $20^{\circ}$ C. If  $p_B - p_A = 97$  kPa, what must the height *H* be in cm?



White 2.52 i 7. utgave (2.47 i 6. utgave)

P2.47

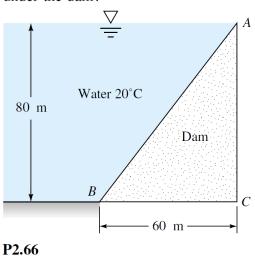
The cylindrical tank in Fig. P2.47 is being filled with water at  $20^{\circ}$ C by a pump developing an exit pressure of 175 kPa. At the instant shown, the air pressure is 110 kPa and H = 35 cm. The pump stops when it can no longer raise the water pressure. For isothermal air compression, estimate H at that time.



P2.47

## White 2.73 i 7. utgave (2.66 i 6. utgave)

**P2.66** Dam ABC in Fig. P2.66 is 30 m wide into the paper and made of concrete (SG = 2.4). Find the hydrostatic force on surface AB and its moment about C. Assuming no seepage of water under the dam, could this force tip the dam over? How does your argument change if there is seepage under the dam?



White 2.93 i 7. utgave (2.83 i 6. utgave)

\*P2.83 Gate *AB* in Fig. P2.83 is a quarter circle 10 ft wide into the paper and hinged at *B*. Find the force *F* just sufficient to keep the gate from opening. The gate is uniform and weighs 3000 lbf.

