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3-)  $\theta = 30^\circ$ ,  $L = 1,5 \text{ m}$ ,  $h = 0,15 \text{ m}$ ,  $\rho_{\text{H}_2\text{O}} = 1000 \frac{\text{kg}}{\text{m}^3}$ ,  $\rho_{\text{Hg}} = 13600 \frac{\text{kg}}{\text{m}^3}$   
 $P_A - P_B = ?$

$$P_A + \rho_{\text{H}_2\text{O}} g L \sin(30^\circ) + \cancel{\rho_{\text{Hg}} g a} + \rho_{\text{H}_2\text{O}} g h = P_B + \cancel{\rho_{\text{H}_2\text{O}} g a} + \rho_{\text{Hg}} g h$$

$$P_A - P_B = 9,81 (13600 \cdot 0,15 - 1000 \cdot 1,5 \cdot 0,5 - 1000 \cdot 0,15)$$

$$P_A - P_B = 11183,4 \text{ Pa.}$$