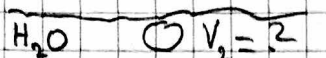
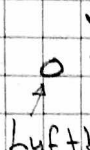
3.



$P_2 = 101\,300$ Pa

$T_2 = T_1$



$$P_1 = P_{vätska} + P_{luft}$$

$$= \rho \cdot g \cdot h + p_{luft}$$

$$= 1000\left[\frac{kg}{m^3}\right] \cdot 9{,}82\left[\frac{N}{kg}\right] \cdot 18[m] + 101\,300\,[Pa]$$

$$= 176\,760 + 101\,300$$

$$= 278\,060 \text{ Pa}$$

$$\frac{P_1 V_1}{T_1} = \frac{P_2 V_2}{T_2}$$

samma

$P_1 V_1 = P_2 V_2$ sätt in värden eller lös ut V_2

$$V_2 = \frac{P_1 V_1}{P_2} = \frac{278\,060 \cdot 2}{101\,300} \approx 5{,}5 \text{ cm}^3$$

SVAR: $5{,}5\ cm^3$