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$S = 71\ cm^2$

$T_1 = 23°C = 296\ K$

$p_1 = 1,04 \cdot 10^5\ Pa$

$V_2 = 99/100\ V_i$

$T_2 = 65°C = 338\ K$

$F = ?$

$$p_2 V_2 = \frac{p_1 V_1}{T_1} \cdot T_2$$

$$p_2 = \frac{p_1 V_1}{T_1} \cdot \frac{T_2}{V_2}$$

$$p_2 = \frac{p_1 V_1}{T_1} \cdot \frac{T_2}{\frac{99}{100} V_i}$$

$$p_2 = \frac{p_1}{T_1} \cdot \frac{100}{99} T_2$$

$$p = \frac{F}{S} \rightarrow F = p_2 \cdot S$$

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0,95% molecole Ar in aria

$p_i = 1{,}013 \cdot 10^5$ Pa

$T_i = 20°C = 293$ K

$V_{ARIA} = 1\ m^3$

$m = ?$

$pV = m \cdot R \cdot T$ $\qquad R = 8{,}31 \frac{J}{K \cdot mol}$

$0{,}95 : 100 = x : 1$

$\frac{0{,}95 \cdot 1\ m^3}{100} = x = V_{ARGON}$

$m = \frac{pV}{R \cdot T}$

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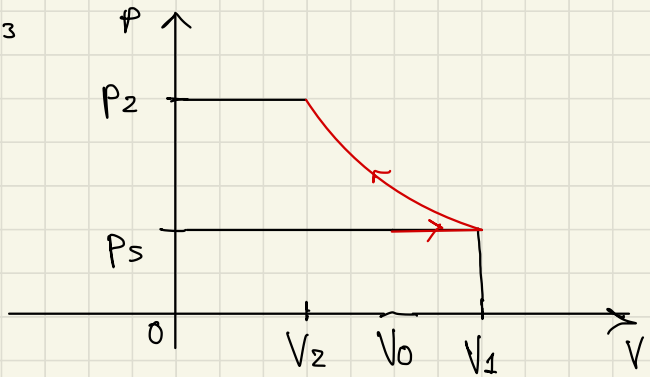
$p_0 = 101\,kPa = 101000\,Pa$

$V_0 = 25\,l = 25\,dm^3 = 0{,}025\,m^3$

$1\,l = 1\,dm^3$



$T_0 = 300\,K$

$T_1 = 400\,K$

$V_2 = \frac{V_1}{2}$

$p_2 = ?$ $T_2 = ?$

$v_2 = ?$

$$\frac{V_0}{T_0} = \frac{V_1}{T_1}$$

$$V_1 = \frac{V_0}{T_0} \cdot T_1$$

$$V_2 = \frac{V_1}{2}$$

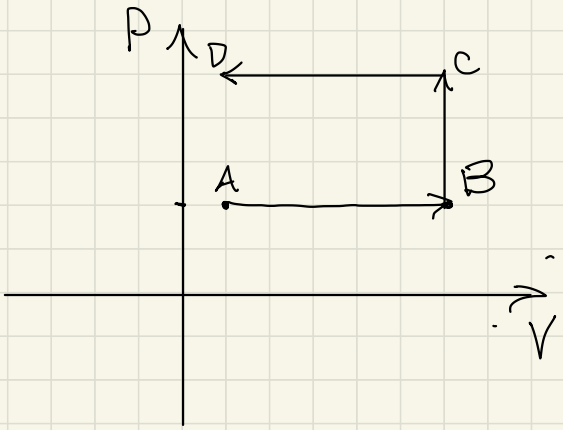
si boccia!

$T_1 = T_2$

$$\boxed{P_2 V_2 = m \cdot R \cdot T_2}$$

$$m = \frac{P_0 \cdot V_0}{T_0 \cdot R}$$

$$P_2 = \frac{m \cdot R \cdot T_2}{V_2} \rightarrow P_2 = \frac{\frac{P_0 \cdot V_0}{T_0 \cdot R} \cdot R \cdot T_2}{V_2}$$



P_A, V_A, n } le conoce

▷ isobara $\overline{AB}$

▷ isocora $\overline{BC}$

▷ isobara $\overline{CD}$

(P_D, V_D, T_D) ?

$P_A V_A = nRT_A \rightarrow T_A = \dfrac{P_A V_A}{nR}$

$V_D = V_A$

$P_D V_D = nRT_D$

$\dfrac{P_A}{T_A} = \dfrac{P_D}{T_D}$