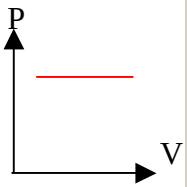
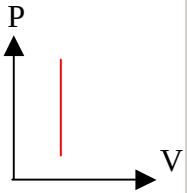
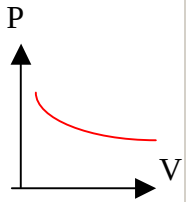
TERMODINAMICA	Ecuación de los gases perfectos $PV = nRT$ Primer principio $dQ = dW + dU = PdV + nc_v dT$ Entropía $dS = \frac{dQ}{T} = \frac{PdV}{T} + \frac{nc_v dT}{T} = \frac{nRdV}{V} + \frac{nc_v dT}{T}$	Relación de Mayer $c_p - c_v = R$ Coeficiente adiabático $\gamma = \frac{c_p}{c_v}$	

	Ecuación	Trabajo	Calor	Energía interna	Entropía	Diagrama Clapeyron
Isóbaro $(dP = 0)$ $(P = Cte)$	$\frac{V_1}{V_2} = \frac{T_1}{T_2}$	$W_{1\to2} = P(V_2 - V_1) =$ $= nR(T_2 - T_1)$	$Q_{1\to2} = nc_p(T_2 - T_1)$	$\Delta U_{1\to2} = nc_v(T_2 - T_1)$	$\Delta S_{1\to2} = nc_p L\frac{T_2}{T_1} =$ $= nc_p L\frac{V_2}{V_1}$	
Isócoro $(dV = 0)$ $(V = Cte)$	$\frac{P_1}{P_2} = \frac{T_1}{T_2}$	$W_{1\to2} = 0$	$Q_{1\to2} = nc_v(T_2 - T_1)$	$\Delta U_{1\to2} = nc_v(T_2 - T_1)$	$\Delta S_{1\to2} = nc_v L\frac{T_2}{T_1} =$ $= nc_v L\frac{P_2}{P_1}$	
Isotermo $(dT = 0)$ $(T = Cte)$	$P_1V_1 = P_2V_2 = nRT$	$W_{1\to2} = nRT\ L\frac{V_2}{V_1} = nRT\ L\frac{P_1}{P_2}$	$Q_{1\to2} = nRT\ L\frac{V_2}{V_1} = nRT\ L\frac{P_2}{P_2}$	$\Delta U_{1\to2} = 0$	$\Delta S_{1\to2} = nRL\frac{V_2}{V_1} =$ $= nRL\frac{P_1}{P_2}$	
Adiabático $(dQ = 0)$ $(Q = 0)$	$P_1V_1^{\gamma} = P_2V_2^{\gamma}$ $T_1V_1^{\gamma-1} = T_2V_2^{\gamma-1}$ $T_1P_1^{\frac{1-\gamma}{\gamma}} = T_2P_2^{\frac{1-\gamma}{\gamma}}$	$W_{1\to2} = nc_v(T_1 - T_2) =$ $= \frac{P_2V_2 - P_1V_1}{1-\gamma}$	$Q_{1\to2} = 0$	$\Delta U_{1\to2} = nc_v(T_2 - T_1)$	$\Delta S_{1\to2} = 0$