* + Different way of expressing the efficiency $\epsilon = 1 - \frac{T\_C}{T\_H}$
    - $\epsilon\_{real} \leq \epsilon\_{C}$ (ideal gas)
      * Isotherms (A->B; C->D) gives us expressions for heat in terms of volume: $\delta U = 0$, $Q\_H = W\_{AB} = n R T\_H \ln \left( \frac{V\_B}{B\_A} \right)$; $Q\_H > 0$ since $V\_B > V\_A$
        + $Q\_H$ = n R T\_H \ln \left( \frac{V\_A}{V\_B} \right)$
        + $Q\_C$ = n R T\_C \ln \left( \frac{V\_D}{V\_C} \right)$
        + $Q\_H > 0$ consistent with inflow
        + $Q\_C < 0$ consistent with outflow
      * Adiabats (B->C, D->A) gives us expressions relating volume to temperature
        + $P V^{\gamma} = constant$
        + $T\_H V\_B^{\gamma-1} = T\_C V\_C^{\gamma-1}$
        + $T\_H V\_A^{\gamma-1} = T\_C V\_D^{\gamma-1}$
        + $\left( \frac{V\_{\mathcal b}{V\_{\mathcal a} \right) = \left( \frac{V\_{\mathcal c}{V\_{\mathcal d} \right)$
        + $\frac{Q\_C}{Q\_H} = - {T\_C}{T\_H}$
        + Last relation gives a clue since $\frac{|Q\_C|}{T\_C} = {|Q\_H|}{T\_H}$
      * Combining gives the efficiency

$\epsilon = 1 - \frac{Q\_C}{Q\_H} = 1 - \frac{T\_C}{T\_H}$