(P9.1) Carbon Dioxide,

$P_1 = 1.5 MPa$

$P_2 = 0.1 MPa$

$T_1 = 25^O C = 298 K$

$T_2 = ??$

(a) assume ideal gas,

for a valve, $\Delta H = 0$

$\Rightarrow \Delta H = 0 = Cp(\Delta T),$

$\Rightarrow \Delta T = 0, \Rightarrow T_2 = 298 K$

(b) by using excel PREOS.XLS, implies H2 = H1, then T2 = 268.2K