

The general expression for enthalpy is derived to be:  $dh = c_P dT + v(1 - \beta T)dP$ .

Evaluate this expression for an ideal gas.

For an ideal gas  $\beta = \frac{1}{T} \rightarrow dh = c_P dT + v(1 - \frac{1}{T}T)dP = dh = c_P dT + v(1 - 1)dP = dh = c_P dT$