



## An ideal gas

An ideal gas has a gas constant  $R = 0.3 \text{ kJ/kg} \cdot \text{K}$  and a constant volume specific heat  $c_v = 0.7 \text{ kJ/kg} \cdot \text{K}$ . If the gas has a temperature change of  $100^\circ\text{C}$ , what is the change in enthalpy?

Answer: 100.

Explanation: The change in enthalpy is given by:

$$\Delta h = c_p \cdot \Delta T = (c_v + R) \cdot \Delta T = 100 \text{ kJ/kg}$$