

## Extra problem for section 6.3

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The heat capacity of solid aluminium is given by the formula

$$C_{p,m} = A + BT$$

with

$$A = 20.7 \text{ J K}^{-1} \text{ mol}^{-1},$$
$$B = 0.0124 \text{ J K}^{-2} \text{ mol}^{-1}.$$

Calculate the molar entropy change when aluminium is heated from 50 to 200 °C.

Answer:  $9.75 \text{ J K}^{-1} \text{ mol}^{-1}$