

- 13** 75 g of potato chips is used as fuel to heat up a calorimeter that contains  $2.00 \times 10^3$  g of water initially at 297 K. The temperature rises by 12 °C. The heat capacity of the calorimeter is  $200 \text{ J K}^{-1}$  and the specific heat capacity of water is  $4.18 \text{ J g}^{-1} \text{ K}^{-1}$ .

How much heat is released per gram of potato chip?

- A**  $1.37 \text{ kJ g}^{-1}$
- B**  $7.10 \text{ kJ g}^{-1}$
- C**  $100 \text{ kJ g}^{-1}$
- D**  $103 \text{ kJ g}^{-1}$