**15** A piece of metal of mass $m$, specific heat capacity $c$ and temperature 20 °C is placed into a liquid of temperature 100 °C. The liquid, which is in a well-insulated container, has mass $3m$ and specific heat capacity $2.5c$.

What is the temperature of the liquid when thermal equilibrium is reached?

**A** 56 °C  **B** 60 °C  **C** 64 °C  **D** 91 °C