12 A piece of metal of mass m, specific heat capacity c and temperature 20 ^{0}C is placed into a liquid of temperature 100 ^{0}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 ^{0}C **B** 60 ^{0}C **C** 85 ^{0}C **D** 91 ^{0}C