

- 19 An electric kettle contains 500 g of water at 15 °C. The heating element of the kettle is rated at 2.2 kW and the specific heat capacity of water is $4.2 \times 10^3 \text{ J kg}^{-1} \text{ K}^{-1}$.

What is the minimum time it takes to raise the temperature of the water to 100 °C?

A 22 s

B 81 s

C 95 s

D 8.1×10^4 s