**17** A body travelling with a speed of $10\,m\,s^{-1}$ has kinetic energy 1500 J.

If the speed of the body is increased to $40\,m\,s^{-1}$, what is its new kinetic energy?

**A** 4500 J **B** 6000 J **C** 24 000 J **D** 1 350 000 J

**18** Which process does **not** require energy to be supplied?

**A** boiling

**B** evaporation

**C** freezing

**D** melting

**19** 1.5 $m^3$ of water is mixed with 0.50 $m^3$ of alcohol. The density of water is 1000 $kg\,m^{-3}$ and the density of alcohol is $800\,kg\,m^{-3}$.

What is the density of the mixture with volume $2.0\,m^3$?

**A** $850\,kg\,m^{-3}$ **B** $900\,kg\,m^{-3}$ **C** $940\,kg\,m^{-3}$ **D** $950\,kg\,m^{-3}$

**Space for working**