

**18** A train of mass  $300\,000\text{ kg}$  is accelerating at  $0.80\text{ m s}^{-2}$ . At one instant, the speed of the train is  $5.0\text{ m s}^{-1}$  and the resistive force to its motion is  $15\text{ kN}$ .

At this instant, what is the rate of increase of kinetic energy of the train?

**A**  $0.075\text{ MW}$

**B**  $1.2\text{ MW}$

**C**  $1.3\text{ MW}$

**D**  $3.8\text{ MW}$