1 Which row shows a physical quantity and its base unit in the SI system?

|	quantity	unit
A	current	A
B	force	N
C	mass	g
D	temperature	°C

2 A car of mass 850 kg is travelling in a horizontal straight line. The diagram shows the two horizontal forces acting on the car in opposite directions.

One force has magnitude 1200 N, and the other force has magnitude 1600 N.

What is the magnitude of the acceleration of the car?

A $0.47\,\mathrm{m\,s^{-2}}$ **B** $1.4\,\mathrm{m\,s^{-2}}$ **C** $1.9\,\mathrm{m\,s^{-2}}$ **D** $3.3\,\mathrm{m\,s^{-2}}$

3 An object of mass m is suspended by a spring from a fixed point.
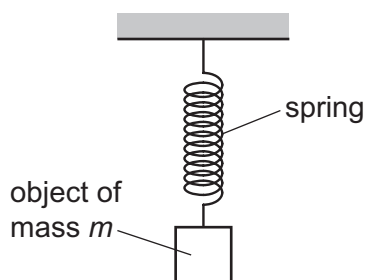
The spring has spring constant k. The object is set into vertical oscillations of period T.

Which equation for T is homogeneous with respect to base units?

A $T = 2\pi\left(\dfrac{k}{m}\right)$ **B** $T = 2\pi\left(\dfrac{m}{k}\right)$ **C** $T = 2\pi\sqrt{\dfrac{k}{m}}$ **D** $T = 2\pi\sqrt{\dfrac{m}{k}}$