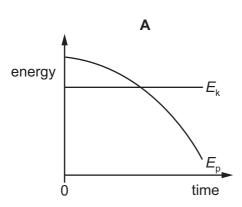
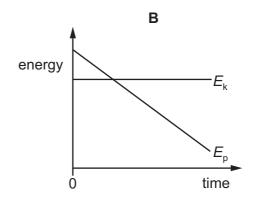
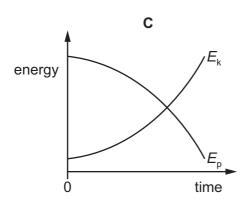
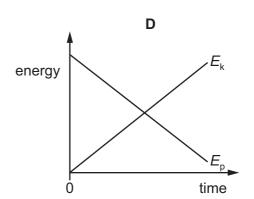
20 A steel ball is falling at constant speed in oil.

Which graph shows the variation with time of the gravitational potential energy E_p and the kinetic energy E_k of the ball?









21 When a force of 0.80 N is applied to a spring, the length of the spring is 90 mm.

When a force of 1.30 N is applied to the same spring, its length is 115 mm.

The spring obeys Hooke's law.

What is the spring constant of the spring?

- **A** $8.9 \,\mathrm{N}\,\mathrm{m}^{-1}$
- **B** 10 N m⁻¹
- $C 11 N m^{-1}$
- **D** 20 N m⁻¹