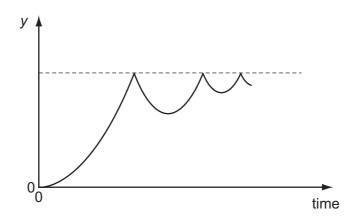
8 A ball is released from rest above a horizontal surface and bounces several times.

The graph shows how, for this ball, a quantity *y* varies with time.



What is the quantity *y*?

- A acceleration
- **B** displacement
- C kinetic energy
- **D** velocity
- **9** A strong wind of speed  $33\,\mathrm{m\,s^{-1}}$  blows against a wall. The density of the air is  $1.2\,\mathrm{kg\,m^{-3}}$ . The wall has an area of  $12\,\mathrm{m^2}$  at right angles to the wind velocity. The air has its speed reduced to zero when it hits the wall.

What is the approximate force exerted by the air on the wall?

- **A** 330 N
- **B** 400 N
- **C** 480 N
- **D** 16000 N

Space for working