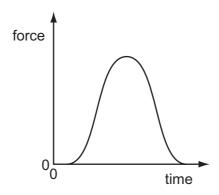
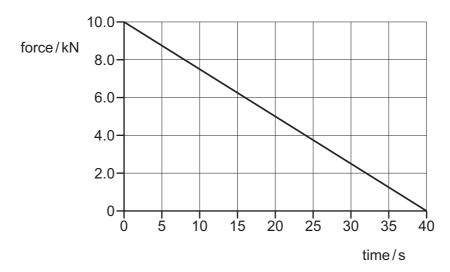
10 A golf ball is hit by a club. The graph shows the variation with time of the force exerted on the ball by the club.



Which quantity, for the time of contact, cannot be found from the graph?

- A the average force on the ball
- **B** the change in momentum of the ball
- **C** the contact time between the ball and the club
- **D** the maximum acceleration of the ball
- **11** A glider of mass 1500 kg is launched from rest on a straight and level track using a catapult. The graph shows the variation with time of the resultant force.



What is the speed of the glider when the resultant force acting on it reaches zero?

- **A** $133 \,\mathrm{m \, s^{-1}}$
- **B** $200 \,\mathrm{m \, s^{-1}}$
- $C 250 \,\mathrm{m\,s^{-1}}$
- $D 267 \, \mathrm{m \, s^{-1}}$
- 12 Which statement about a ball that strikes a tennis racket and rebounds is always correct?
 - **A** The total kinetic energy of the ball is conserved.
 - **B** The total kinetic energy of the system is conserved.
 - **C** The total momentum of the ball is conserved.
 - **D** The total momentum of the system is conserved.