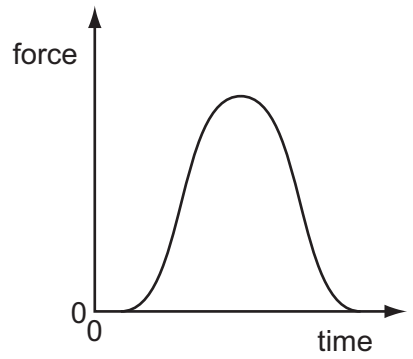
10 A golf ball is hit by a club. The graph shows the variation with time of the force exerted on the ball by the club.



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

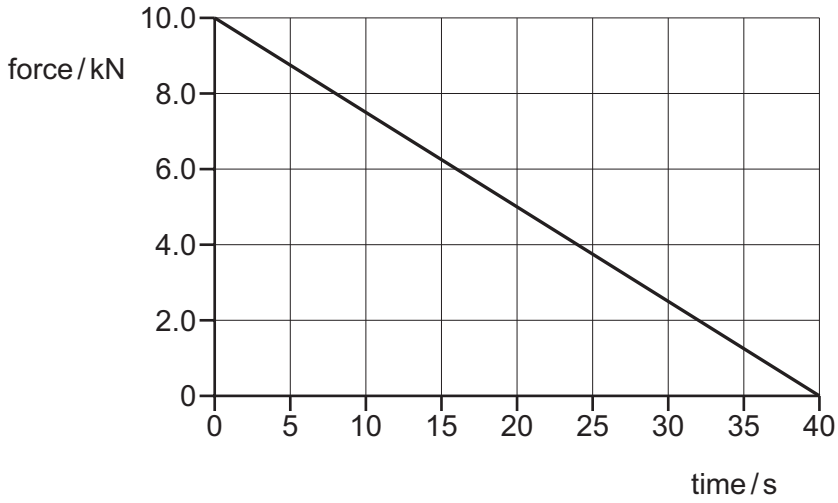
A the average force on the ball

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 $m\,s^{-1}$ **B** 200 $m\,s^{-1}$ **C** 250 $m\,s^{-1}$ **D** 267 $m\,s^{-1}$

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.