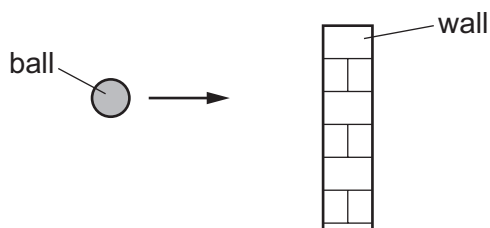


- 8 A moving ball with a momentum of 25 kg m/s collides head-on with a wall.



It rebounds from the wall with the same speed but in the opposite direction. The time of collision is 50 ms .

What is the average force exerted on the wall by the ball during the collision?

- A** 0.50 N **B** 1.00 N **C** 500 N **D** 1000 N
- 9 Which device is designed to convert chemical energy into kinetic energy?
- A** an a.c. generator
B a battery-powered torch
C a car engine
D a wind-up mechanical clock
- 10 An object, initially at rest, is dropped from a height of 12.0 m . The change in gravitational potential energy when it falls to the ground is 565 J .

The frictional forces are negligible.

What is its speed when it hits the ground?

- A** 4.71 m/s **B** 15.5 m/s **C** 47.1 m/s **D** 240 m/s
- 11 A man climbs a ladder.

Which two quantities can be used to calculate the useful power of the man?

- A** the weight of the man and the time taken only
B the weight of the man and the vertical distance moved only
C the work done by the man and the time taken only
D the work done by the man and the vertical distance moved only