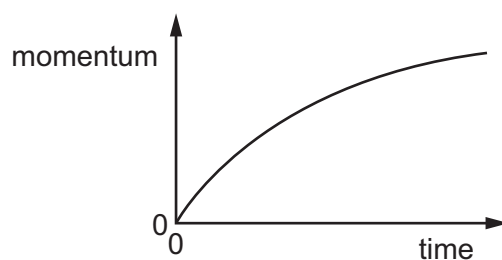
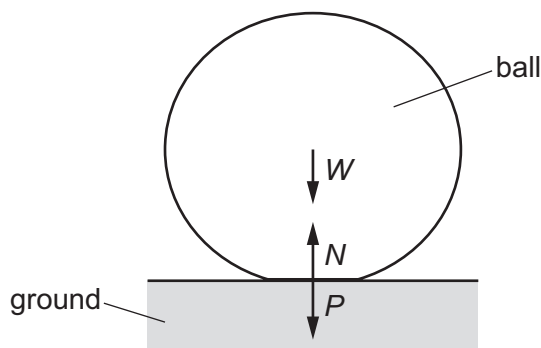


- 8 A car accelerates from rest. The graph shows the variation of the momentum of the car with time.



What is the meaning of the gradient of the graph at a particular time?

- A** the kinetic energy of the car
- B** the rate of change of kinetic energy of the car
- C** the resultant force on the car
- D** the velocity of the car
- 9 A ball is dropped onto horizontal ground and bounces vertically upwards. When the ball is in contact with the ground, the following forces act:
- the weight W of the ball
 - the contact force P exerted on the ground by the ball
 - the contact force N exerted on the ball by the ground.



When the ball is in contact with the ground, the ball is momentarily stationary.

At this instant, which relationship is correct?

- A** $N = P + W$ **B** $N > P + W$ **C** $N = W$ **D** $N > W$