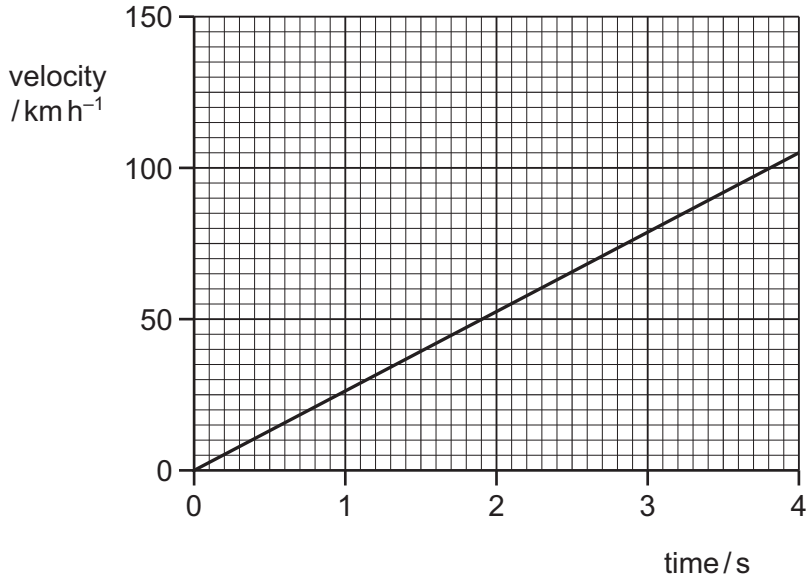
8 The velocity of an electric car changes as shown.



What is the acceleration of the car?

A 210 m s^{-2} **B** 58 m s^{-2} **C** 26 m s^{-2} **D** 7.3 m s^{-2}

9 A body falling in a uniform gravitational field encounters air resistance. The air resistance increases until terminal velocity is reached.

Which factor does **not** affect its terminal velocity?

A the density of the air

B the height from which the body falls

C the mass of the body

D the shape of the body

10 Which of the following is a statement of the principle of conservation of momentum?

A Momentum is the product of mass and velocity.

B In an elastic collision, momentum is constant.

C The momentum of an isolated system is constant.

D The force acting on a body is proportional to its rate of change of momentum.