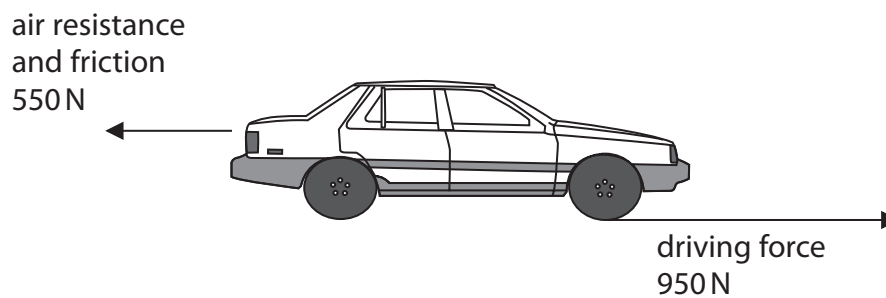


- 4 The diagram shows the horizontal forces on a car travelling to the right along a level road.



- (a) How can you tell that the car is accelerating?

(1)

- (b) (i) State the relationship between acceleration, change in velocity and time.

(1)

- (ii) The car accelerates for 6.0 s.

The velocity of the car increases from 15 m/s to 24 m/s.

Calculate the acceleration of the car.

(2)

acceleration = ..... m/s<sup>2</sup>

- (c) Describe how the horizontal forces on the car change when the driver applies the brakes.

(2)

(Total for Question 4 = 6 marks)

