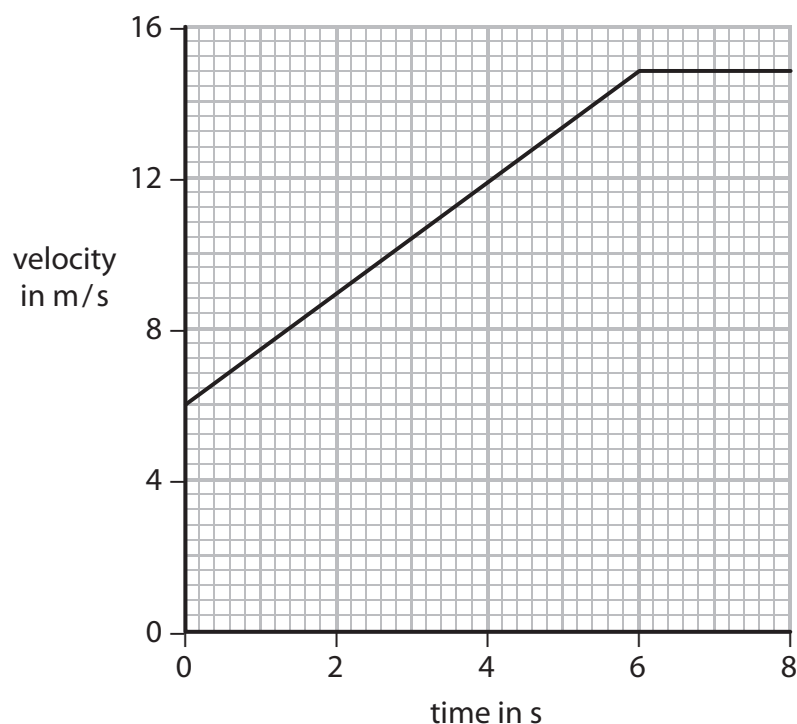(c) The graph shows part of another journey.

The lorry accelerates and then travels at a constant velocity.

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

(1)

(ii) Calculate the acceleration of the lorry during the first 6 s.

(2)

acceleration = ... m/s^2

(iii) Calculate the distance travelled during the 8 s shown on the graph.

(3)

distance = ... m

(d) The lorry has 6 tyres.

(i) State the relationship between pressure, force and area.

(1)

(ii) The pressure in each tyre is 240 kPa.

The weight of the lorry is 180 kN.

Calculate the area of each tyre that is in contact with the road.

(4)

area = ... m^2

(Total for Question 8 = 19 marks)