

31. Fig. 1.1 shows the speed-time graph for the motion of a car.

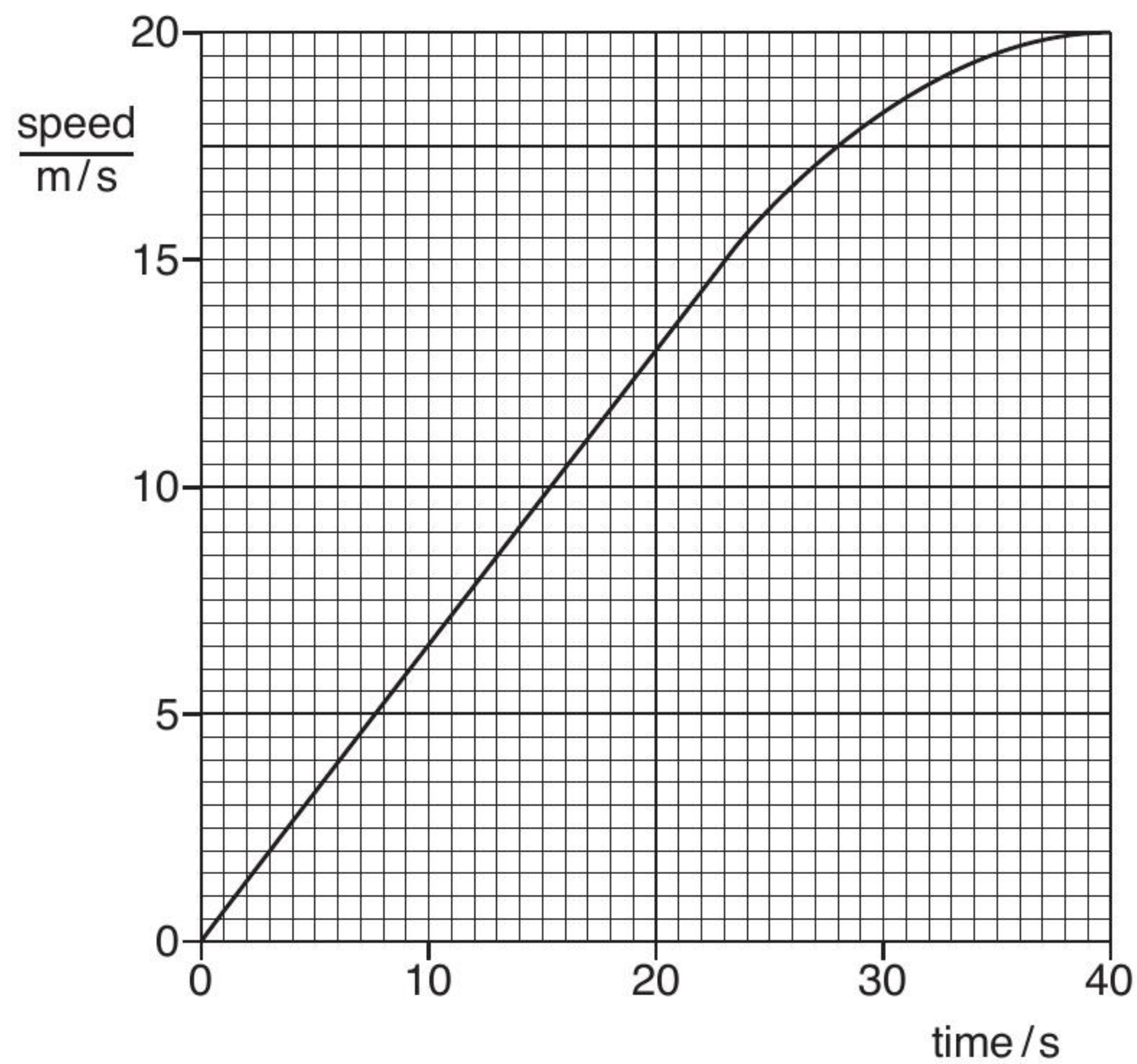


Fig. 1.1

The mass of the car is 1200 kg.

(a) Calculate, for the first 20 s of the motion,

(i) the distance travelled by the car,

distance = .....[2]

(ii) the acceleration of the car,

acceleration = .....[2]

(iii) the resultant force acting on the car.

resultant force = .....[2]

(b) Describe the motion of the car in the period of time from 25 s to 40 s.

.....  
 .....[1]

[Total: 7]