



## Section A

Answer **all** the questions in this section.

- 1 A car starts from rest and moves in a straight line. Its velocity is plotted against time for the first 30 s of its journey. This is shown in Fig. 1.1.

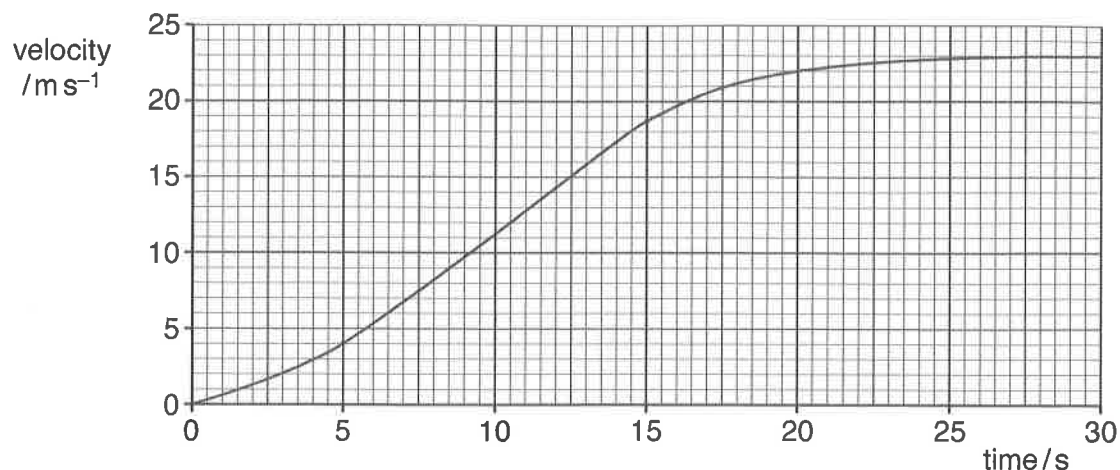


Fig. 1.1

Using data from the graph determine

- (a) (i) the maximum velocity of the car,

velocity = ..... m s<sup>-1</sup> [1]

- (ii) the maximum acceleration of the car,

acceleration = ..... m s<sup>-2</sup> [2]

- (iii) the distance the car travels during the 30 s.

distance = ..... m [4]



- (b) On Fig. 1.2, sketch the distance-time graph for the first 30 s of the car's journey shown in Fig. 1.1.

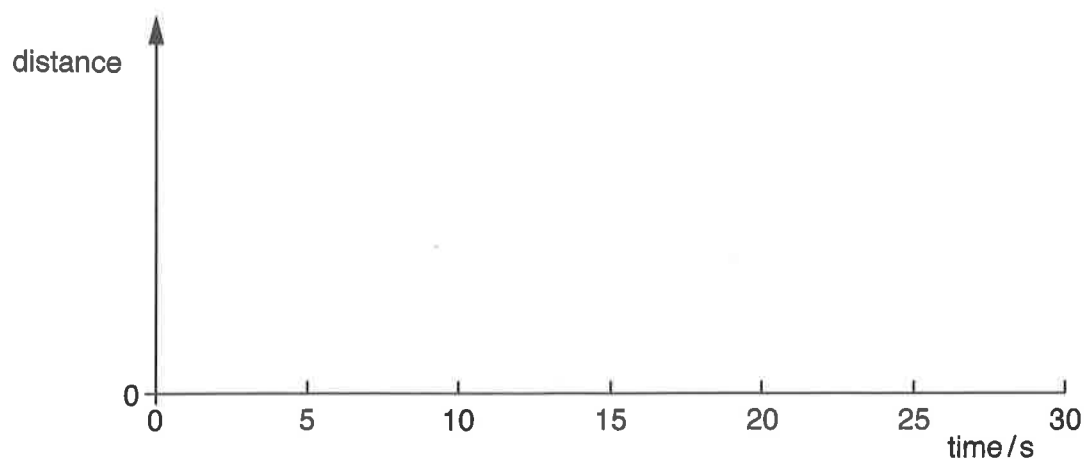


Fig. 1.2

[2]

