

AS Level in Physics A
H156/02 Depth in physics

Question Set 7

1. Fig. 1 shows how the velocity v of a car varies with time t as the car approaches a road junction.

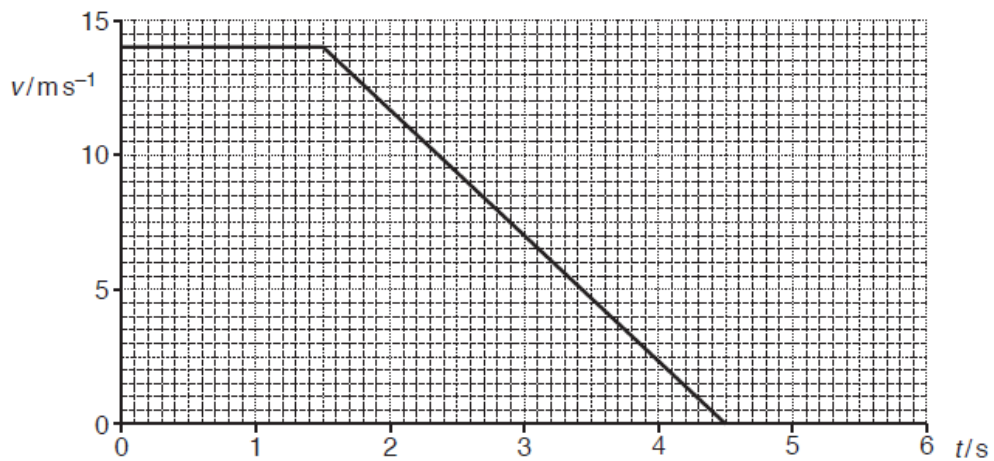


Fig. 1

- (a) Explain what feature of the graph shows the deceleration of the car and that the deceleration is constant after 1.5 s.

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[2]

- (b) The driver of the car applies the brakes at a distance of 20 m from the 'stop line' at the junction.

Calculate the distance s of the car relative to the stop line when the car comes to a stop.

$s = \dots\dots\dots$ m

[3]

Total Marks for Question Set 7: 5

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