8. The diagram shows the speed-time graph of a remote control toy over a period of 25 seconds.

(a) Find the acceleration of the toy when

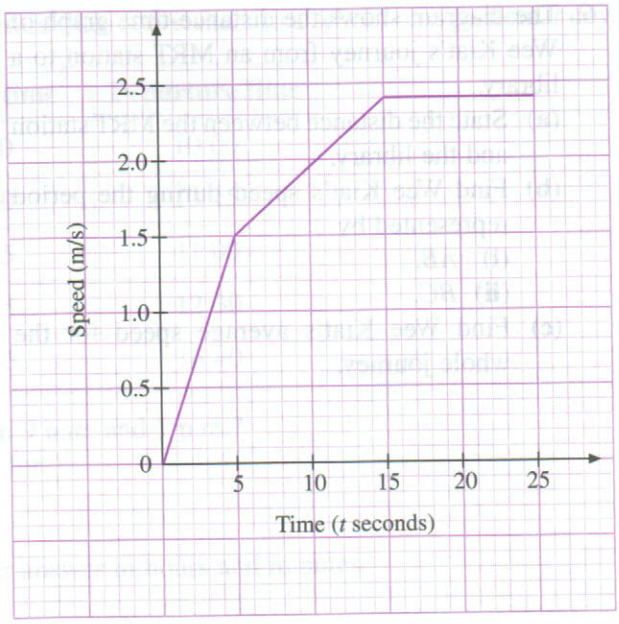
(i) $t = 3$,

(ii) $t = 12$,

(iii) $t = 20$.

(b) **(i)** Find the total distance travelled by the toy during the 25 seconds.

(ii) Hence, find the average speed of the toy during the 25 seconds.



9. The diagram shows the speed-time graph of a cyclist over a period of 60 seconds.

(a) State the minimum speed of the cyclist during the 60 seconds in m/s and km/h.

(b) Find the acceleration of the cyclist during

(i) the first 20 seconds,

(ii) the last 40 seconds.

(c) State the deceleration of the cyclist during the first 20 seconds.

(d) **(i)** Find the total distance travelled by the cyclist during the 60 seconds.

(ii) Hence, find the average speed of the cyclist during the 60 seconds.