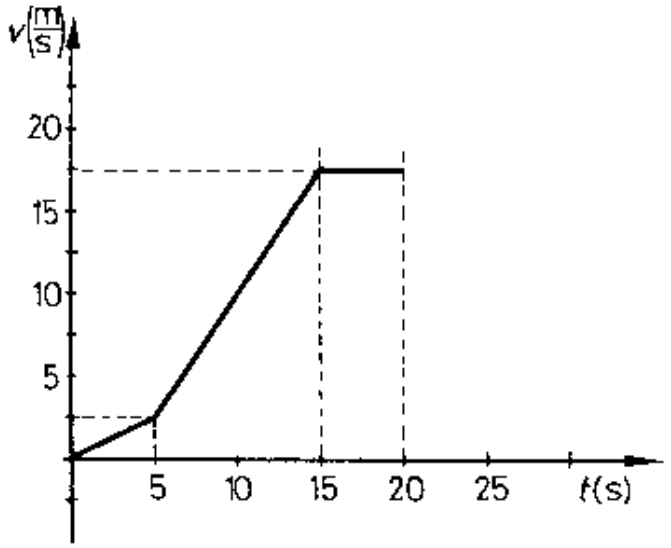
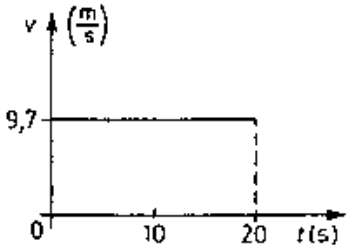
1.39. Ábrázoljuk annak az egyenletes mozgásnak a sebességét, amellyel mozogva a test 20 s alatt ugyanakkora utat tenne meg, mint a grafikonon megadott sebességű mozgás közben!



Megoldás:

1.39. $v_0 = 0$; $\Delta t_1 = 5$ s; $v_1 = 2{,}5 \frac{\text{m}}{\text{s}}$; $\Delta t_2 = 15$ s-5 s$= 10$ s; $v_2 = 17{,}5 \frac{\text{m}}{\text{s}}$;

$\Delta t_3 = 20$ s $- 15$ s$= 5$ s; $v_3 = 17{,}5 \frac{\text{m}}{\text{s}}$.



$\Delta s = s_1 + s_2 + s_3$, $s = \frac{v_0 + v_t}{2} \cdot t$.

$\overline{v} = \frac{\Delta s}{\Delta t} = 9{,}6875 \frac{\text{m}}{\text{s}} \sim \underline{\underline{9{,}7 \frac{\text{m}}{\text{s}}}}$.