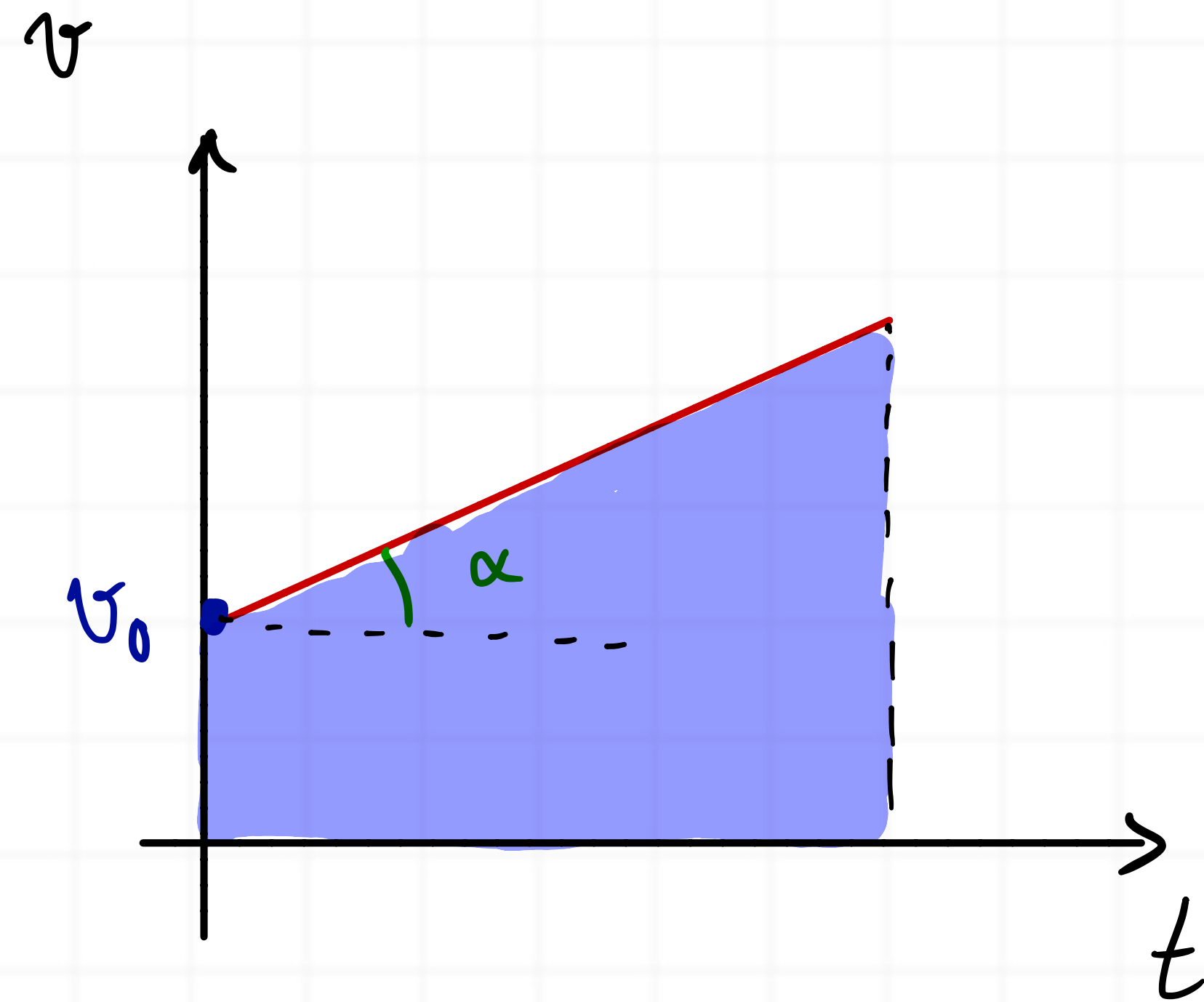


Módulo (4) Movimento Uniformemente Variado

→ Aceleração

$$a = \frac{\Delta v}{\Delta t} \Rightarrow a = \frac{v - v_0}{t} \Rightarrow \underline{v = v_0 + at}$$

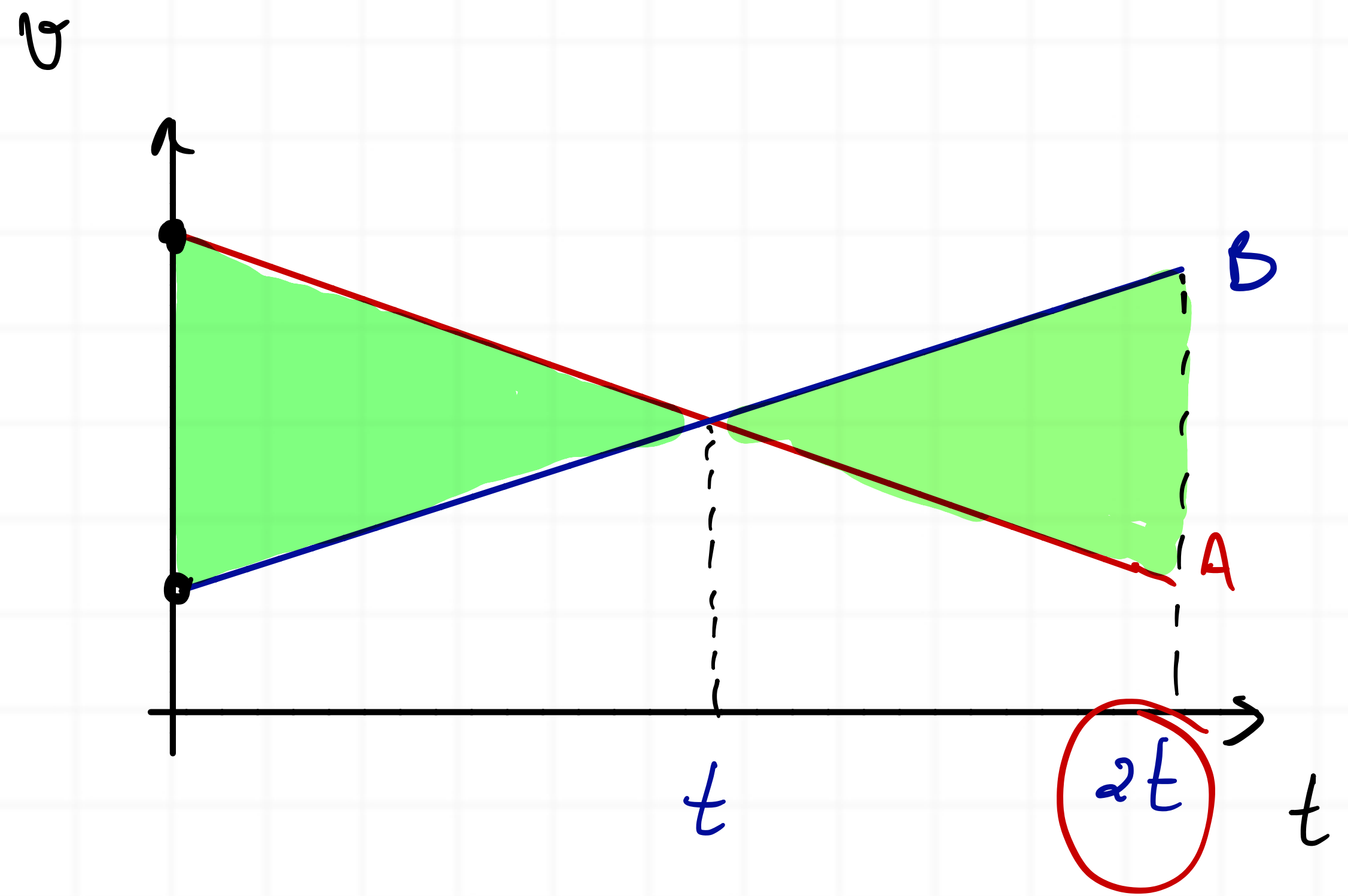
→ Gráfico $v \times t$



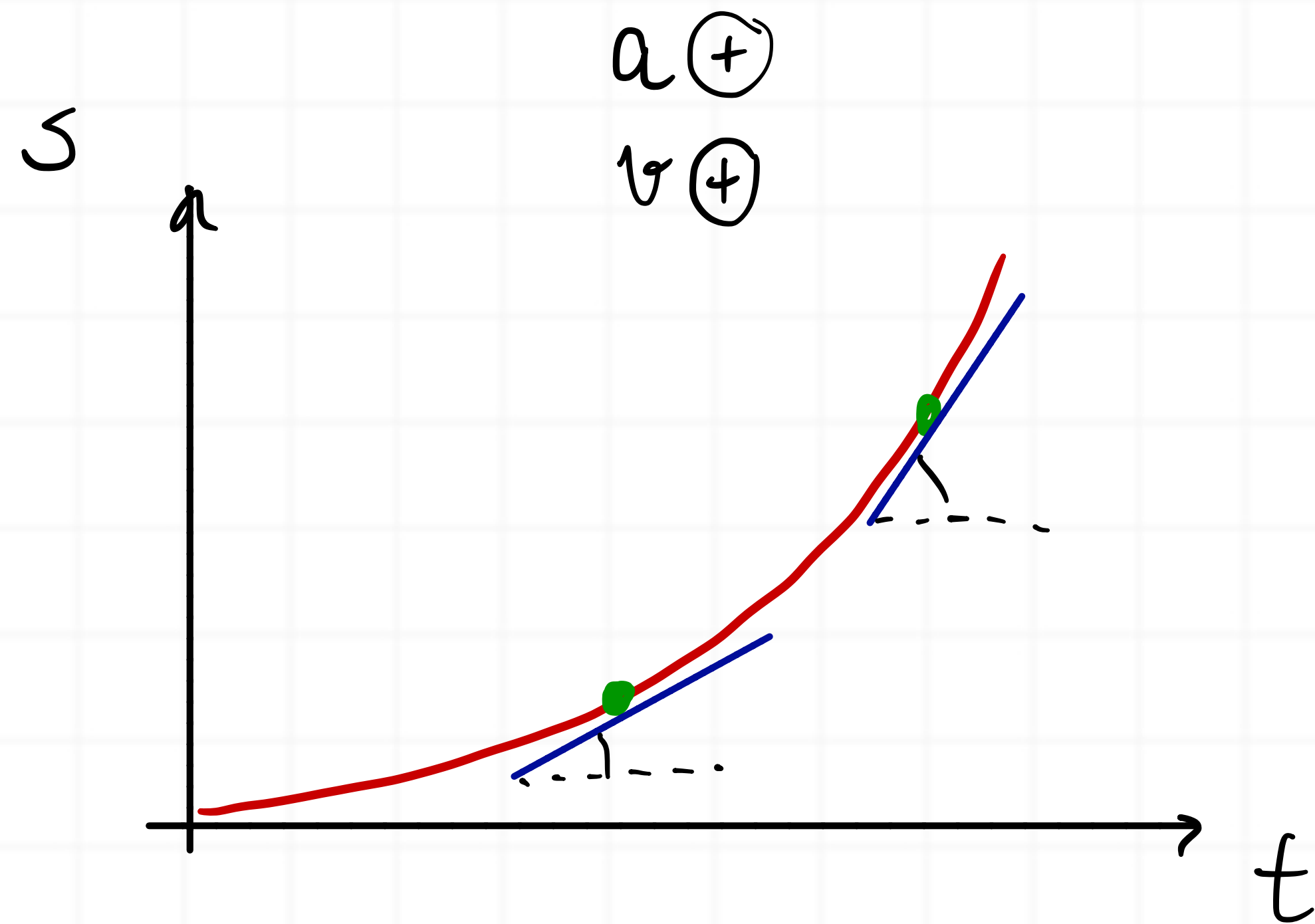
$$v = v_0 + at$$

$$y = B + Ax$$

$$\text{inclinação} = \text{tg } \alpha = a \left. \begin{array}{l} \oplus \\ \ominus \end{array} \right\}$$



~> FUNÇÃO HORÁRIA DA POSIÇÃO



inclinação = v

$$d = v_0 t + \frac{1}{2} a t^2$$

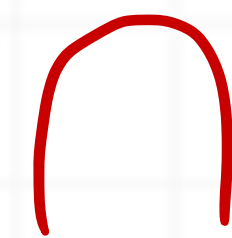
$$s = s_0 + v_0 t + \frac{1}{2} a t^2$$

$$y = C + Bx + Ax^2$$

$$a > 0$$



$$a < 0$$

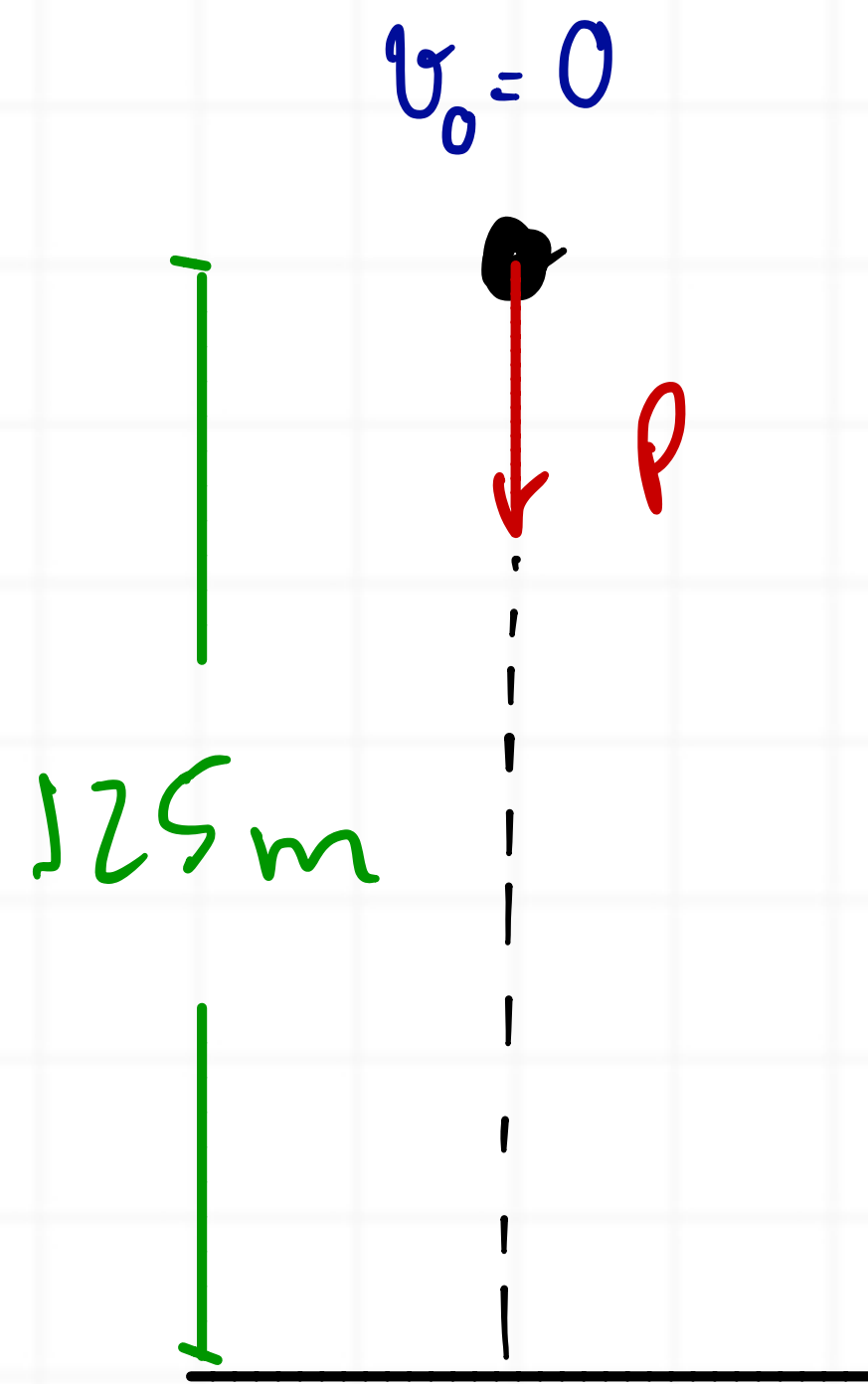


↳ EQUAÇÃO DE TORRICELLI

$$\left\{ \begin{array}{l} v^2 = v_0^2 + 2ad \\ v = v_0 + at \\ d = v_0 t + \frac{1}{2} at^2 \end{array} \right.$$

$$d = v_M \cdot t \Rightarrow v_M = \frac{v + v_0}{2}$$

Módulo 5 Queda livre e Lançamento Vertical



$$F_R = P$$
$$\cancel{m}a = \cancel{m}g$$
$$a = g$$

$$d = \cancel{v_0}t + \frac{1}{2}at^2$$

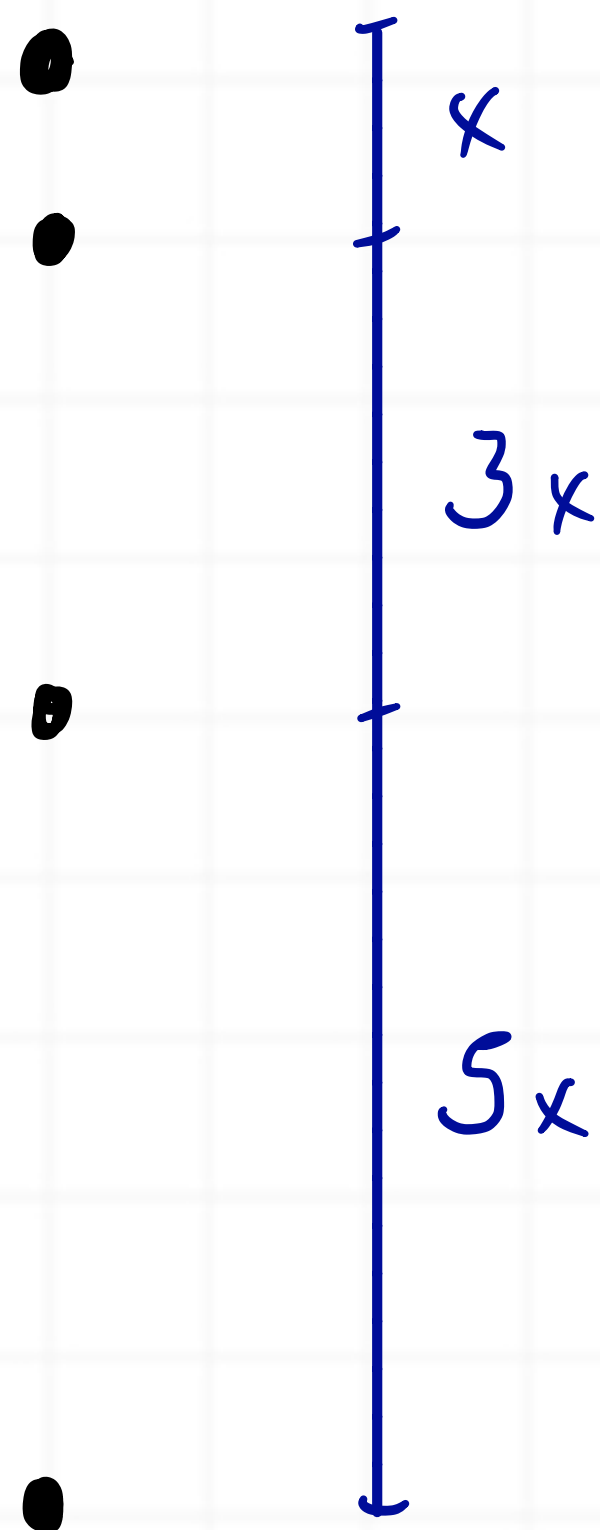
$$H = \frac{1}{2} \cdot g \cdot t^2$$

$$H = 5t^2$$

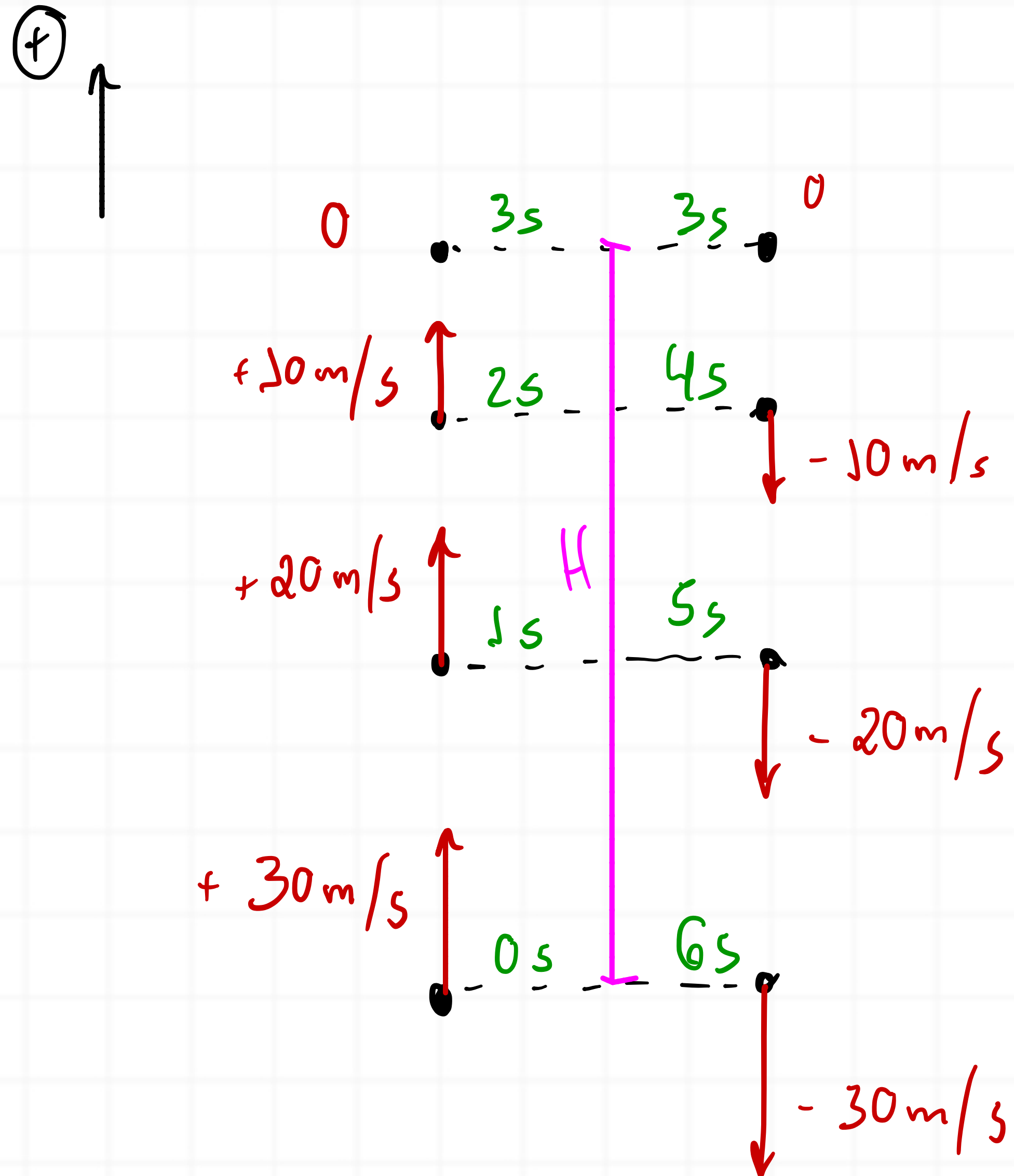
$$t = 5\text{s}$$

→ Proporções de Galileu

$$v_0 = 0$$



→ Lançamento Vertical



$$H = 5t^2$$

$$H = 45\text{ m}$$

↓
 $g = -10\text{ m/s}^2$