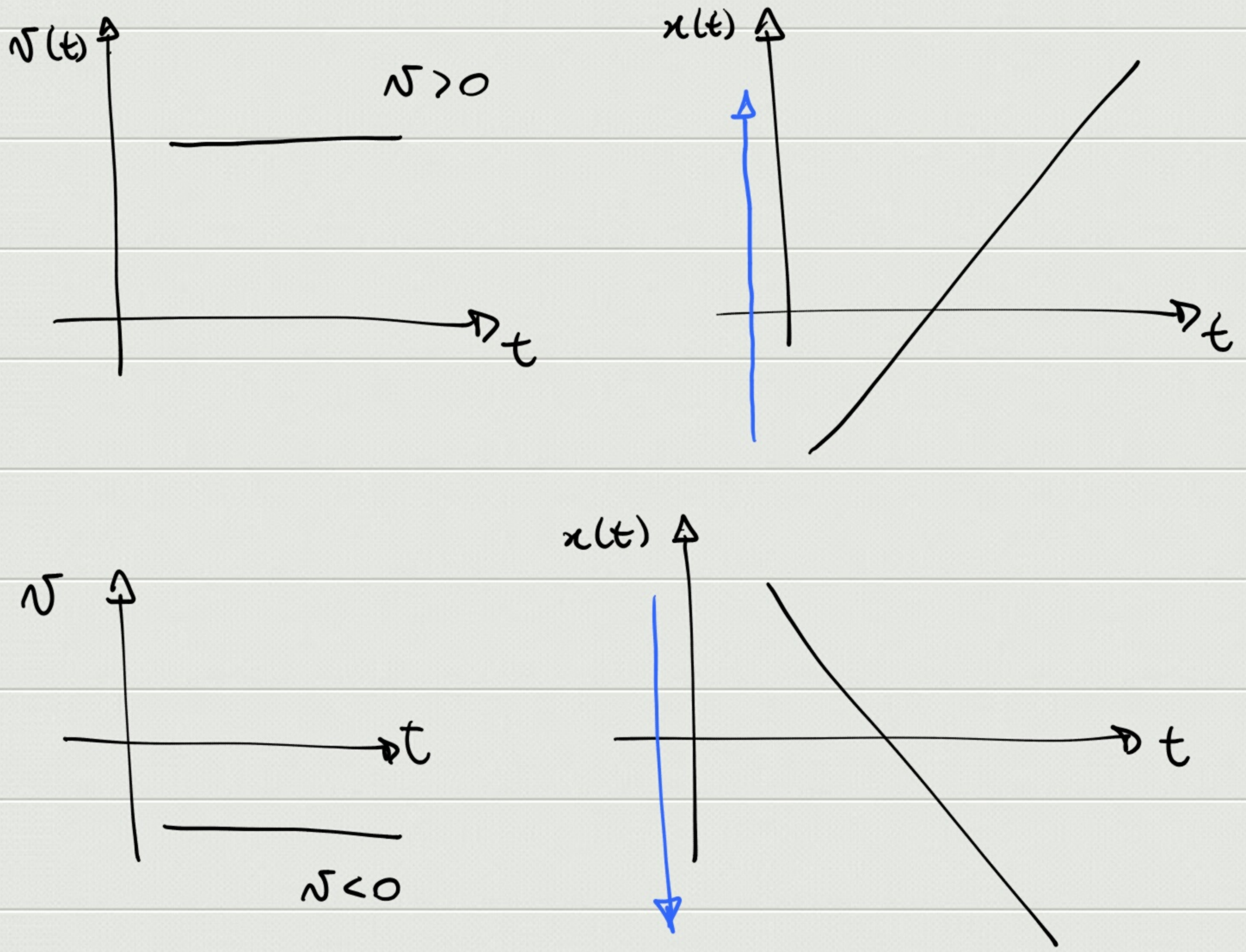
$$a_m = \frac{v_2 - v_1}{t_2 - t_1} = \frac{\Delta v}{\Delta t}$$

$$a(t) = v'(t) = \frac{dv}{dt} = \frac{d^2x}{dt^2}$$

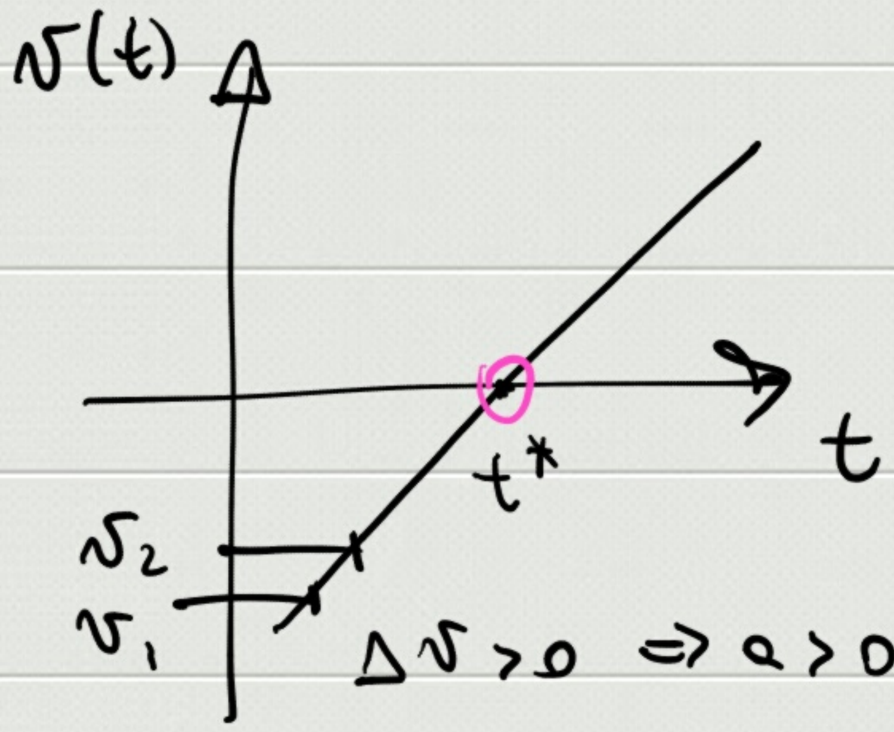
$$v = \frac{dx}{dt}$$

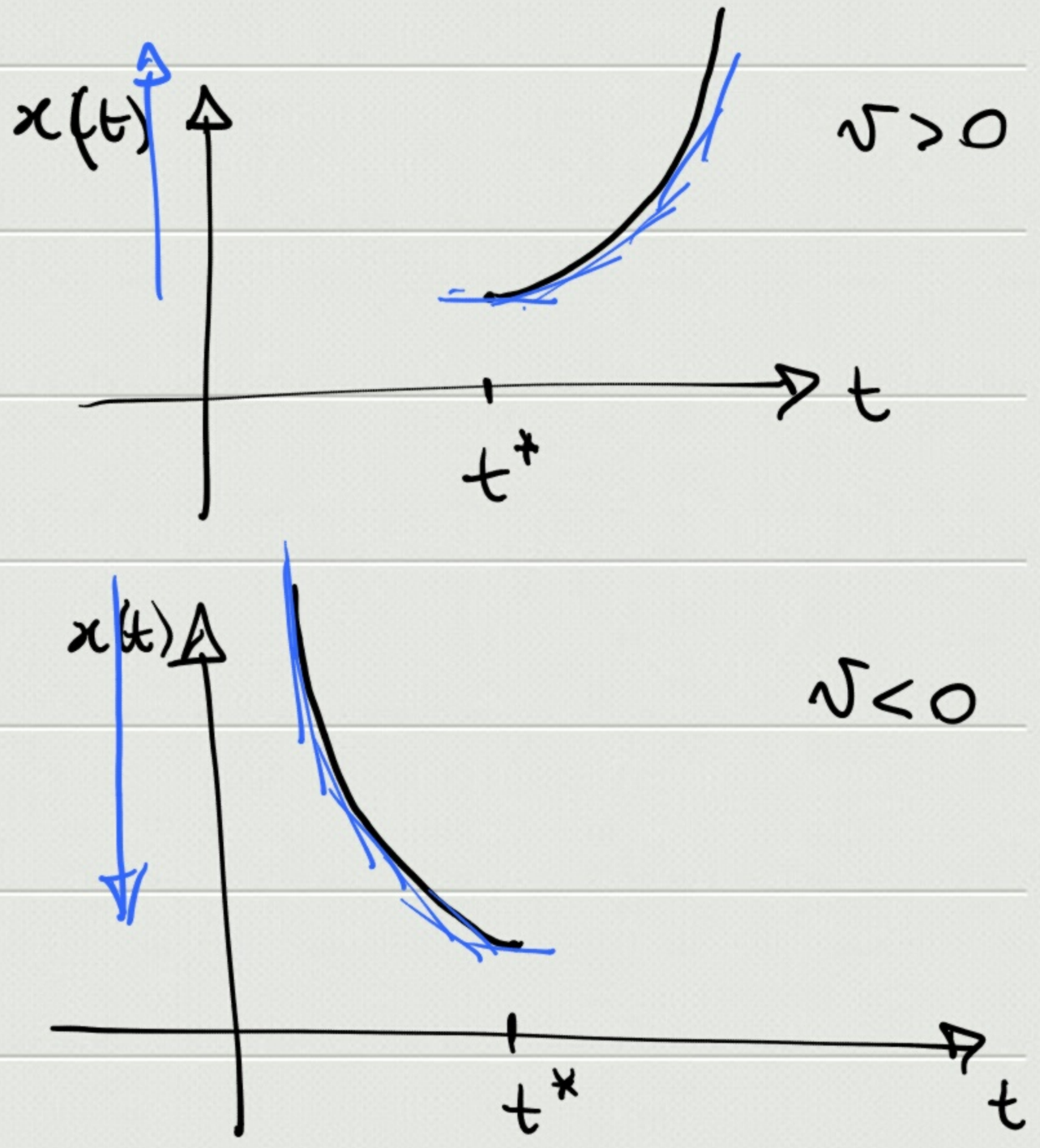
$$a = 0 \qquad \frac{dv}{dt} = 0 \Rightarrow v = \cos t \Rightarrow x = x_0 + v\,t$$



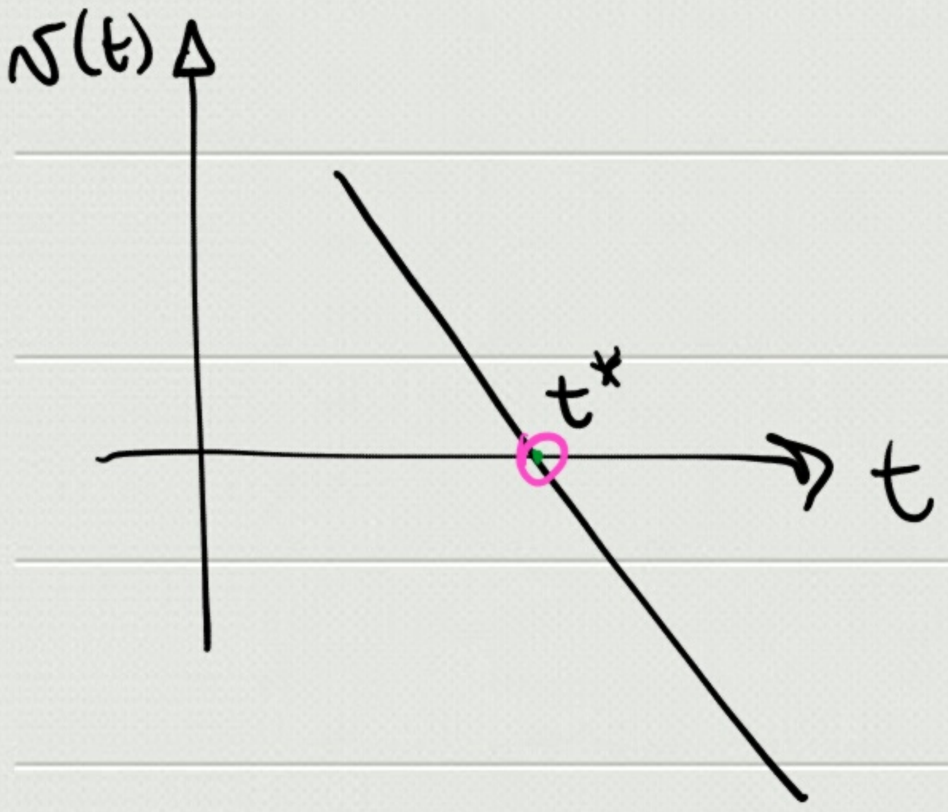
$$\frac{d^2x}{dt} > 0$$

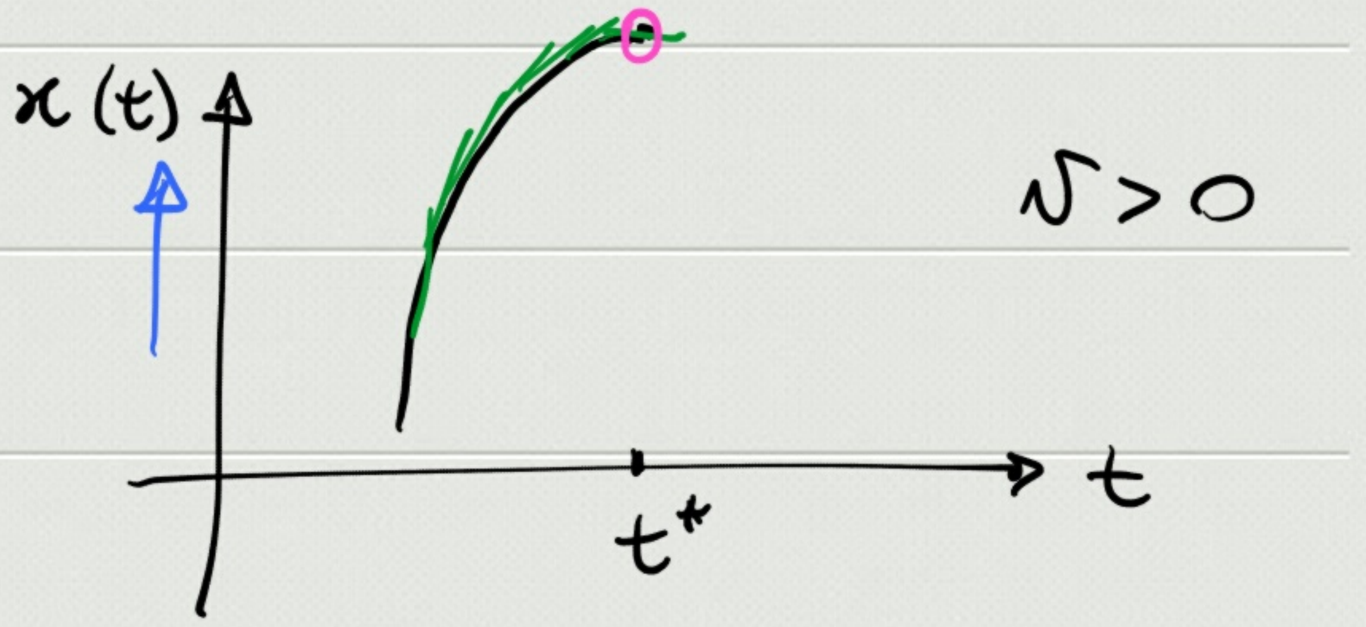
$a = const > 0 \Rightarrow \frac{dv}{dt} > 0$

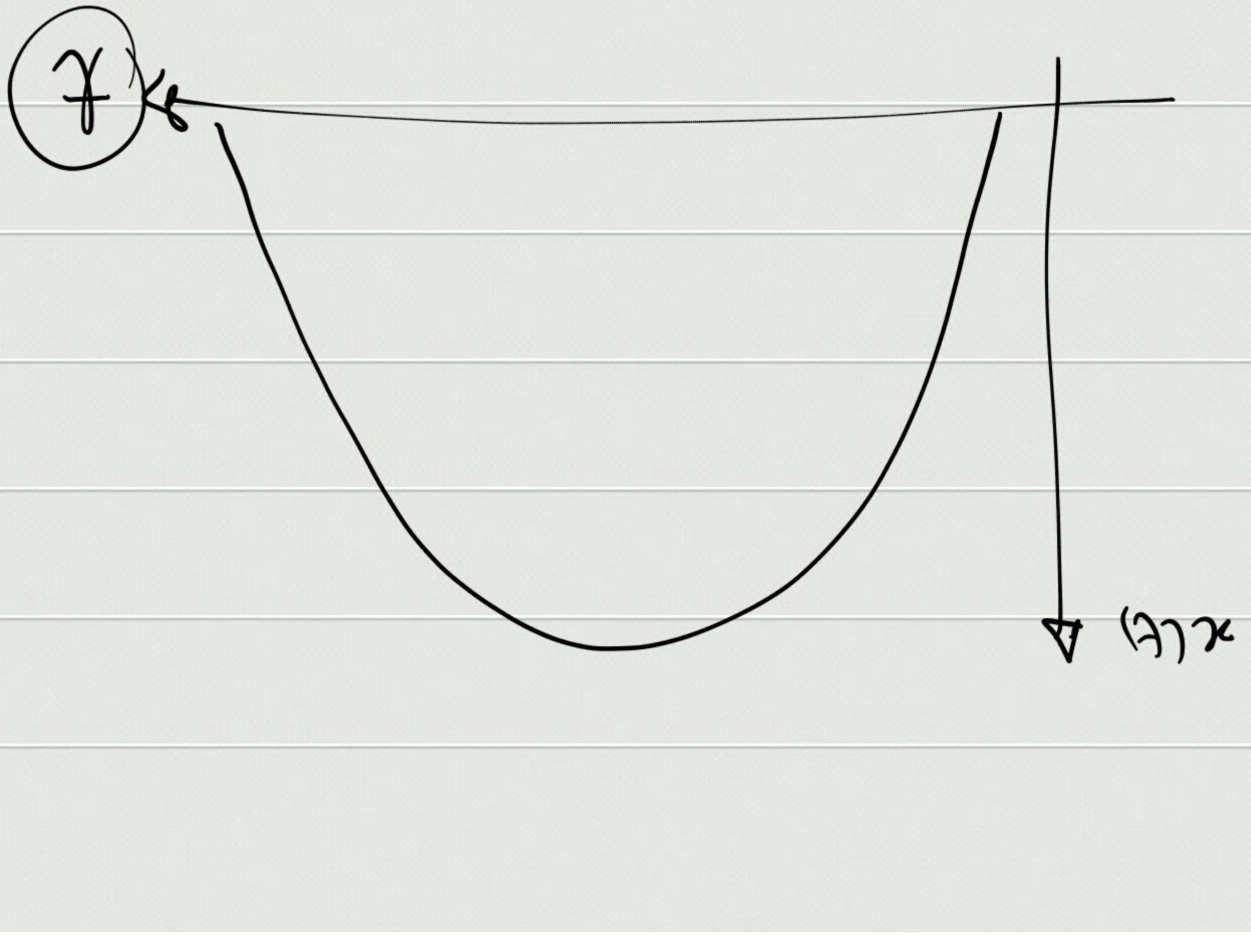




$a = const < 0 \Rightarrow \frac{dv}{dt} < 0 \qquad \frac{d^2x}{dt} < 0$






γ
x(t)