

Rem.: (i) Chosen time t as the independent variable for convenience... But it could be anything else x ...

(ii) We seek an entire function

Ex.: (1)
$$\left. \begin{aligned} \dot{y}(t) &= y(t) \\ y(t_0) &= y_0 \end{aligned} \right\} \text{IVP}$$

For each value of t and y the ODE prescribes the derivative \dot{y} of the solution

\rightsquigarrow slope fields (also direction field or vector field)

