You MAY NOT use your calculators.

Consider the differential equation  $\frac{dy}{dx} = \frac{1+y}{x}$ , where  $x \neq 0$ .

(a) On the axes provided, sketch a slope field for the given differential equation at the eight points indicated.



(b) Find the particular solution y = f(x) to the differential equation with the initial condition f(-1) = 1 and state its domain.