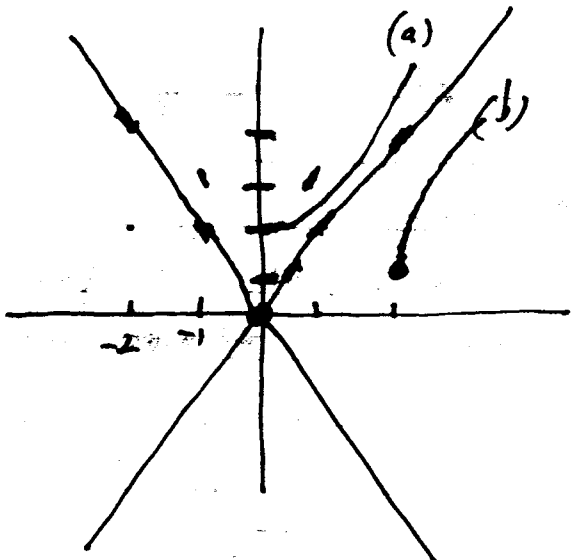
#1



(a) $y = \pm 2x$

$\frac{dy}{dx} = \pm 2$ •

$\frac{4x}{y} = \frac{4x}{\pm 2x} = \pm 2$

so $y = \pm 2x$ is a solution

$\frac{dy}{dx} = \frac{4x}{y}$

(b) Sketch the soln curve with $y(0) = 2$

(c) Sketch the soln curve with $y(2) = 1$.

#11 Draw isoclines with their direction markers and sketch several solution curves, including the curve satisfying the given initial conditions.

$\frac{dy}{dx} = 2x \qquad y(0) = -1$

$2x = c$ when $x = \frac{c}{2}$.

On the vertical line $x = \frac{c}{2}$, direction field marks have slope c.