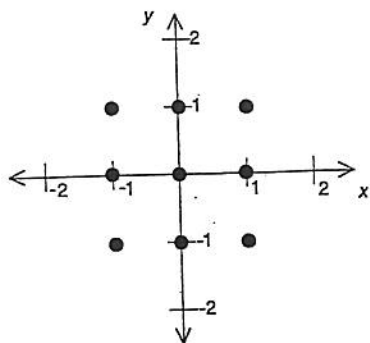
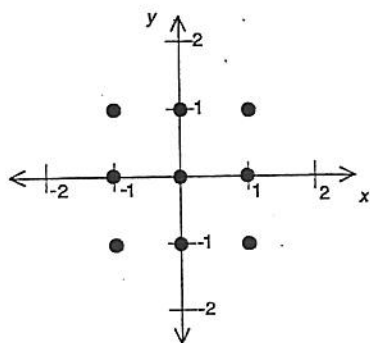


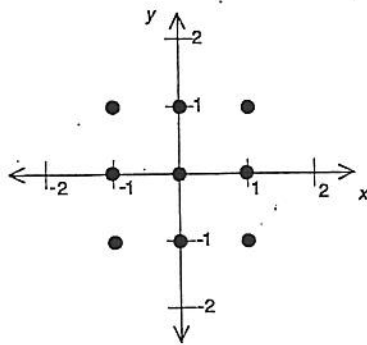
Example 1 Sketch a slope field for the differential equation $\frac{dy}{dx} = 2x$ at the 9 points indicated.



Example 2 Sketch a slope field for the differential equation $\frac{dy}{dx} = 1 - y$ at the 9 points indicated.

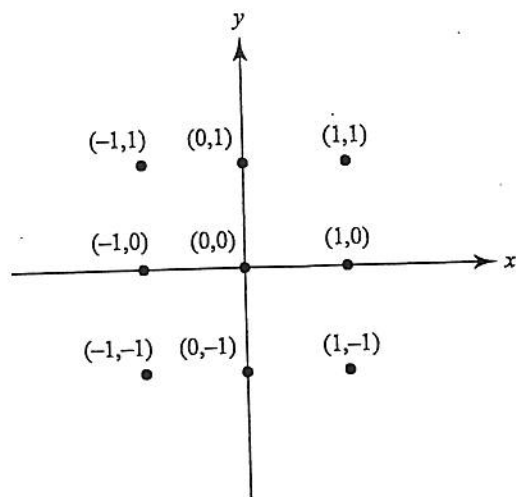


Example 1 Sketch a slope field for the differential equation $\frac{dy}{dx} = 2x - y$ at the 9 points indicated.



5. Given the differential equation $\frac{dy}{dx} = 2x(y^2 + 1)$

(a) Sketch the slope field for this differential equation at the points shown in the figure.



(b) Let f be the function that satisfies the differential equation and whose graph passes through $(0, 1)$. Express f as a function of x .