Name:\_ Score:

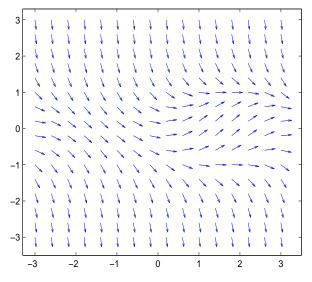
Instructions: You must show supporting work to receive full and partial credits. No text book, notes, formula sheets allowed.

1(5pts) The slope field of an equation dy/dx = f(x, y) is given. Sketch the solutions with the following initial points:

(a) 
$$y(-3) = 3$$
;

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$$y(-3) = 3$$
; (b)  $y(-1) = 2$ ;

(c) 
$$y(0) = 2$$
.



2(5pts) Use the method of separable equations to find the solution to the initial value problem

$$\frac{dy}{dx} + 2xy^2 = 0, \ y(0) = 1.$$