

MATH 2700 - DIFFERENTIAL EQUATIONS, Spring, 2008

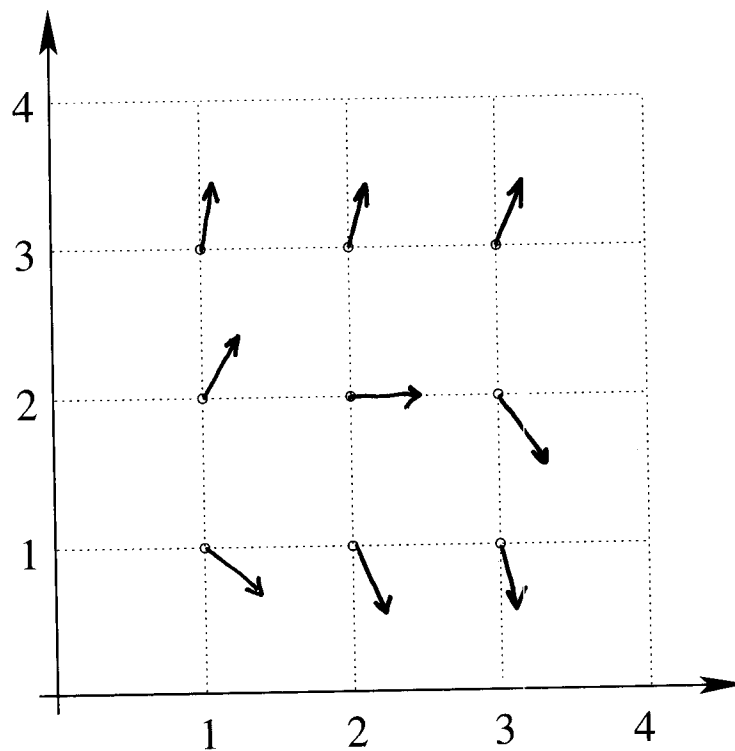
QUIZ 1 1/15/08

Name : SOLUTION

Plot the direction field of the following function on the indicated nine grid points:

1.

$$\frac{dy}{dx} = y^2 - 2x = f(x, y)$$



$$\begin{aligned} f(1,1) &= -1 \\ f(1,2) &= 2 \\ f(1,3) &= 7 \\ f(2,1) &= -3 \\ f(2,2) &= 0 \\ f(2,3) &= 5 \\ f(3,1) &= -5 \\ f(3,2) &= -2 \\ f(3,3) &= 3 \end{aligned}$$