

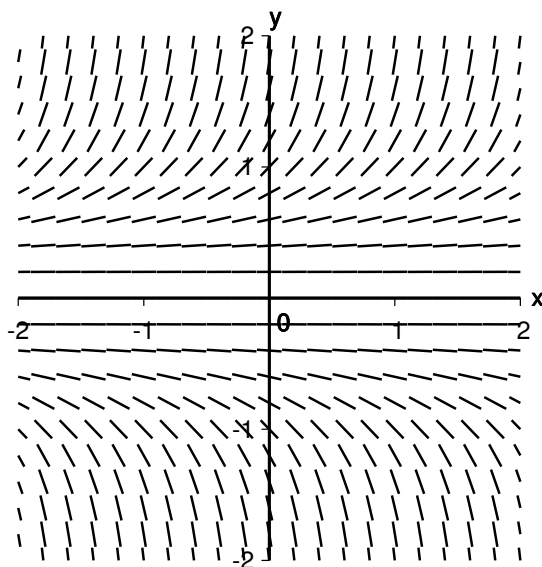
MAC2312: Calculus 2 - Section 3

Quiz 12: 9.2 Direction Fields and Euler's Method

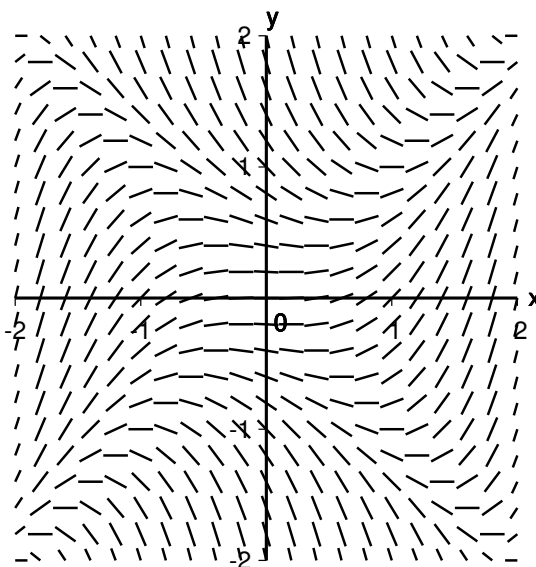
June 24, 2015

1. Select the direction field that corresponds to the differential equation $y' = y^3 - y$.

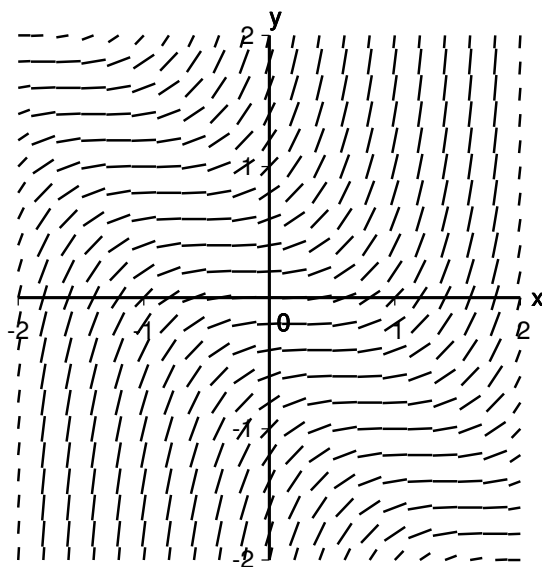
A.



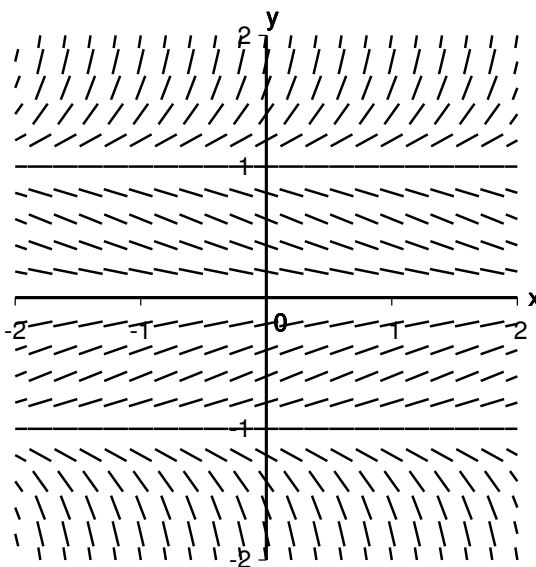
B.



C.



D.



The differential equation $y' = y^3 - y$ is autonomous so we can eliminate B and C. Also, notice $y' = y(y - 1)(y + 1)$ is zero when $y = 0, 1$, or -1 and the direction field D has zero slope when $y = 0, 1$, or -1 , so D is correct.