

Quiz 6  
10/23/2023

1. Consider the initial-value problem  $y' = y^2 - x$ ,  $y(1) = 0$ . Write the recursive formula of the Euler's method for this equation. Estimate the values of  $y(1.1)$ ,  $y(1.2)$ ,  $y(1.3)$ .

*turn to the page for the next problem...*

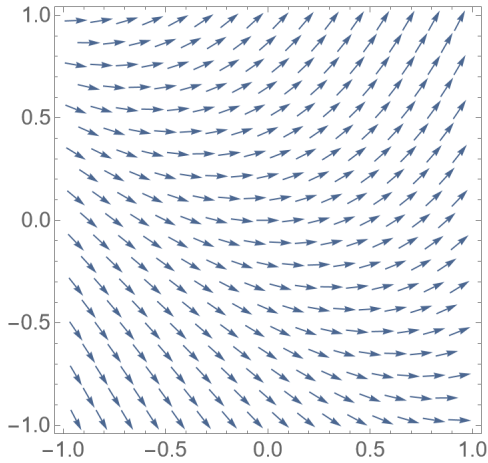
2. Identify the direction field corresponding to each given differential equation. See the figures on the next page.

————  $y' = x - y$

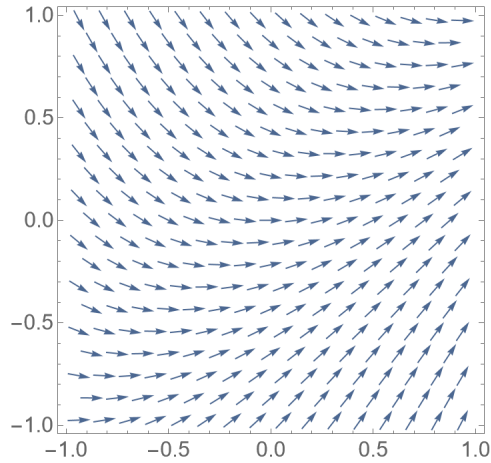
————  $y' = -x - y$

————  $y' = x + y$

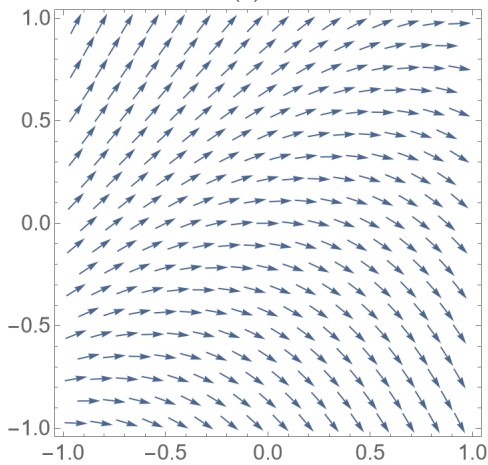
————  $y' = -x + y$



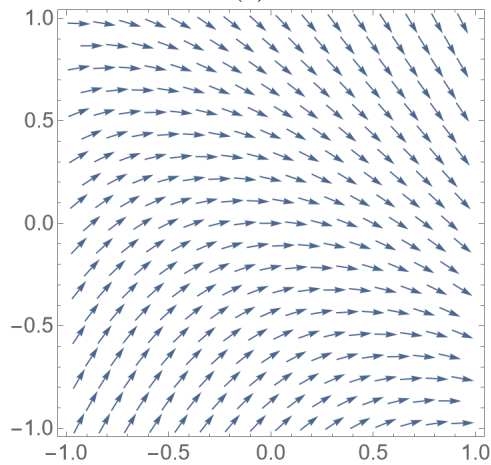
(a)



(b)



(c)



(d)