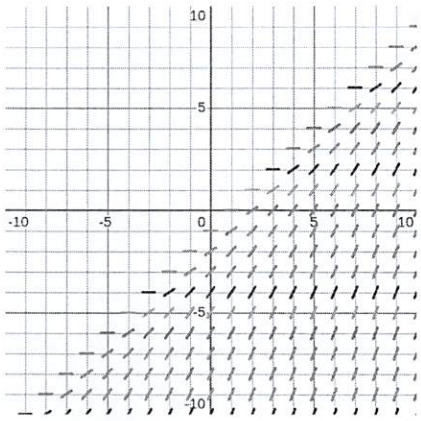
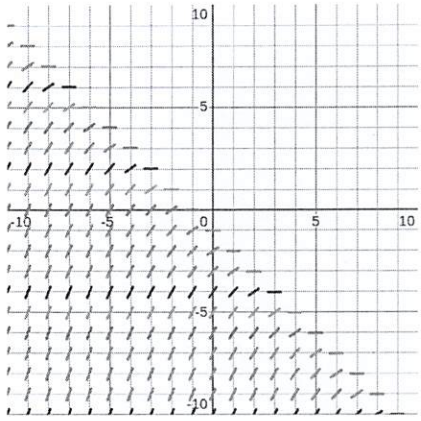
Name: Solutions Section: 11 12 13

Match each differential equation with its corresponding direction field.

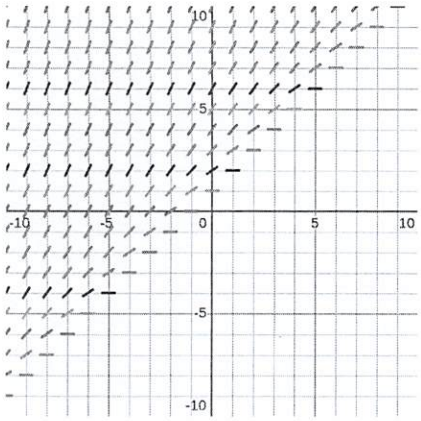
(a)



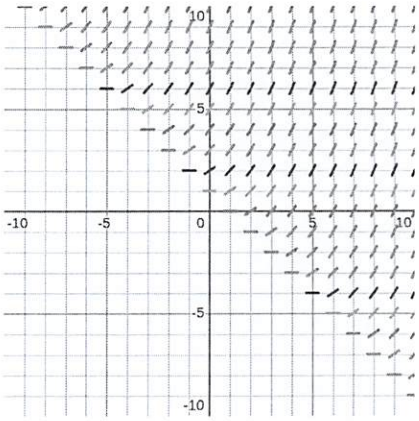
(c)



(b)



(d)



1. $y' = \ln(x - y)$ → defined for $x - y > 0 \iff x > y$ (a)
2. $y' = \ln(x + y)$ → defined for $x + y > 0 \iff y > -x$ (d)
3. $y' = \ln(-x + y)$ → defined for $-x + y > 0 \iff y > x$ (b)
4. $y' = \ln(-x - y)$ → defined for $-x - y > 0 \iff -x > y$ (c)