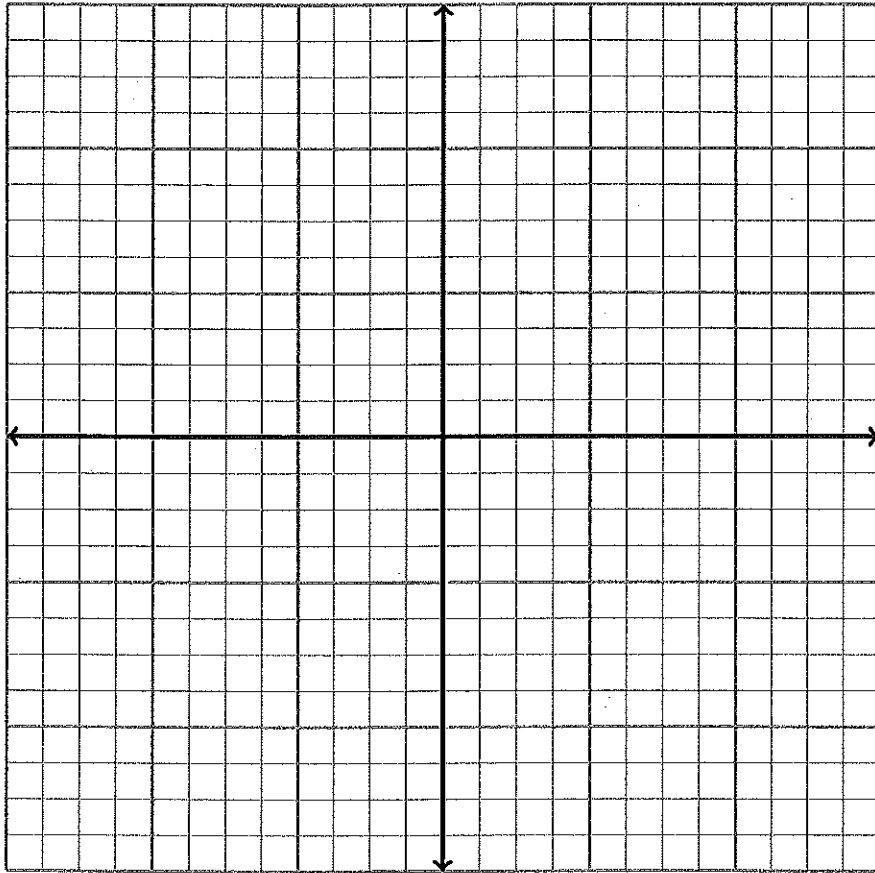


Slope Fields

February 8, 2014

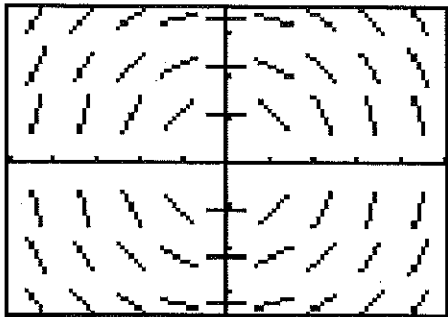
Draw the slope field for the differential equation $\frac{dy}{dx} = -\frac{x}{y}$.



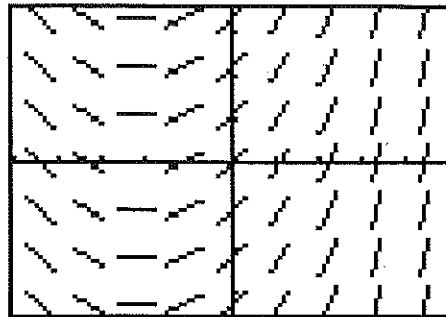
x	y	$\frac{dy}{dx} = -\frac{x}{y}$
0	1	
0	-1	
1	1	
1	-1	
-1	1	
-1	-1	
2	1	
1	2	
-2	0	

Match the slope fields with their differential equations.

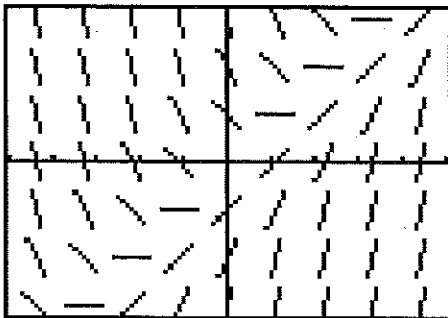
(A)



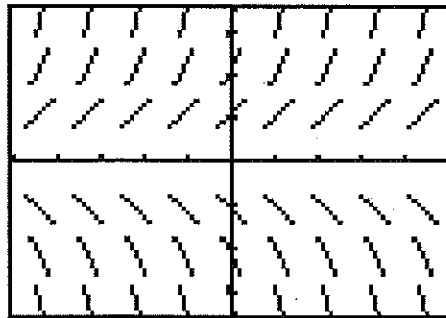
(B)



(C)



(D)



15. $\frac{dy}{dx} = \frac{1}{2}x + 1$

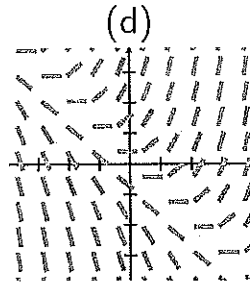
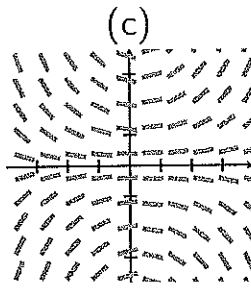
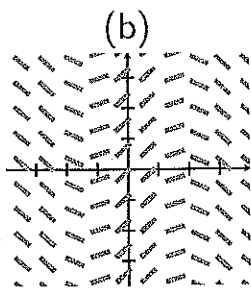
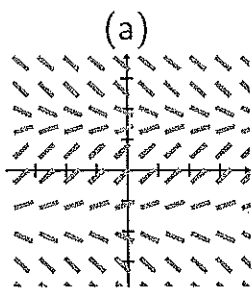
16. $\frac{dy}{dx} = x - y$

17. $\frac{dy}{dx} = y$

18. $\frac{dy}{dx} = -\frac{x}{y}$

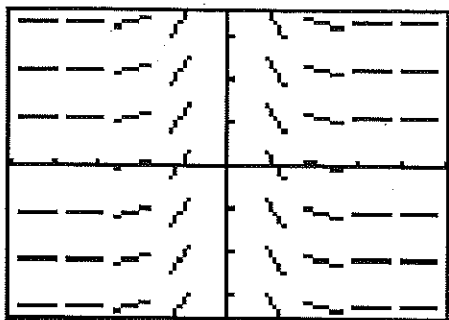
(1) Match the differential equations to the slope fields:

(A) $\frac{dy}{dx} = \frac{1}{5}xy$ (B) $\frac{dy}{dx} = x+y$ (C) $\frac{dy}{dx} = \cos(x)$ (D) $\frac{dy}{dx} = \cos(y)$

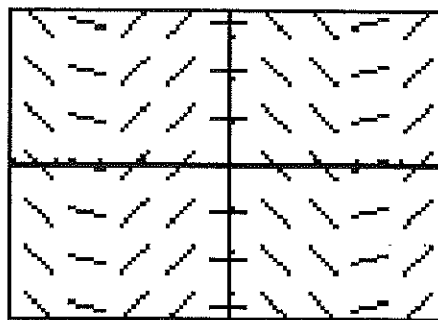


For 7 – 14, match each slope field with the **equation** that the slope field could represent.

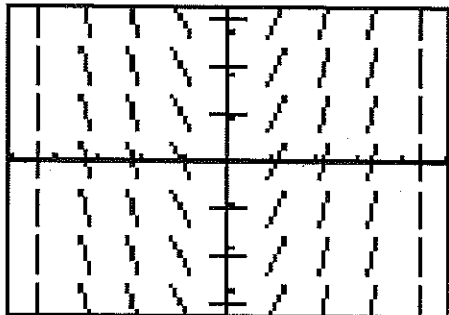
(A)



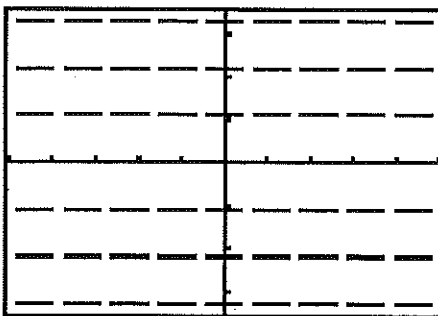
(B)



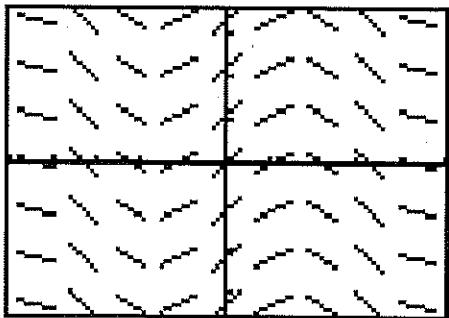
(C)



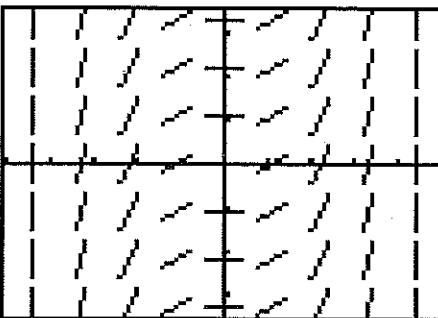
(D)



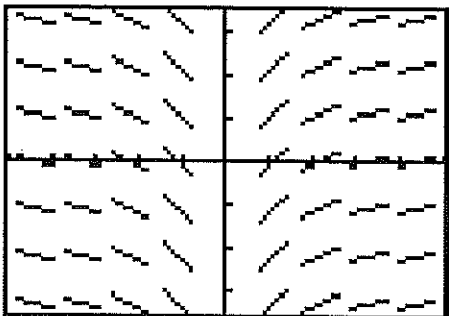
(E)



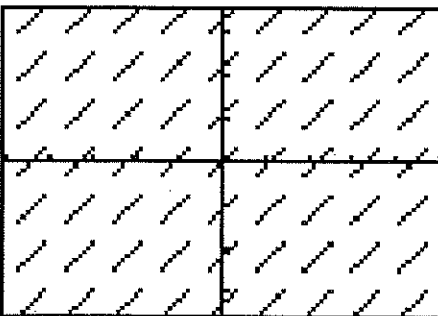
(F)



(G)



(H)



7. $y = 1$

10. $y = \frac{1}{6}x^3$

13. $y = \cos x$

8. $y = x$

11. $y = \frac{1}{x^2}$

14. $y = \ln|x|$

9. $y = x^2$

12. $y = \sin x$