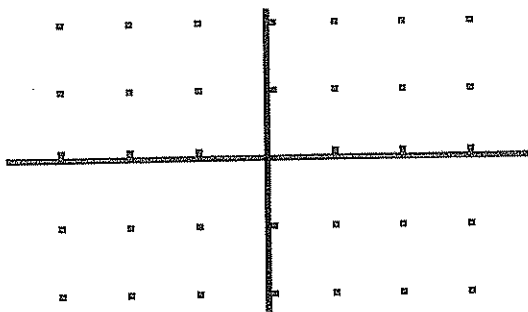


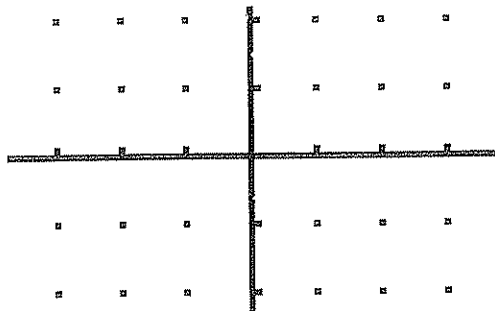
SLOPE FIELDS

Draw a slope field for each of the following differential equations.

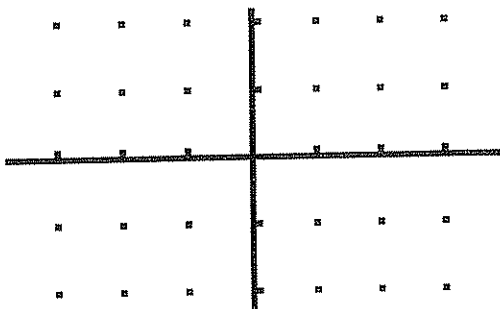
1. $\frac{dy}{dx} = x + 1$



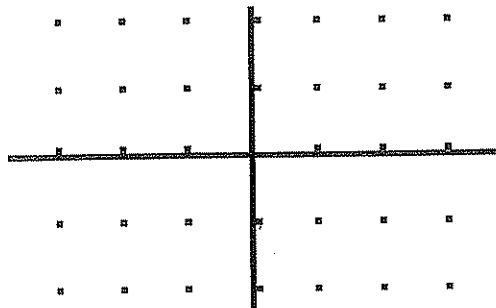
2. $\frac{dy}{dx} = 2y$



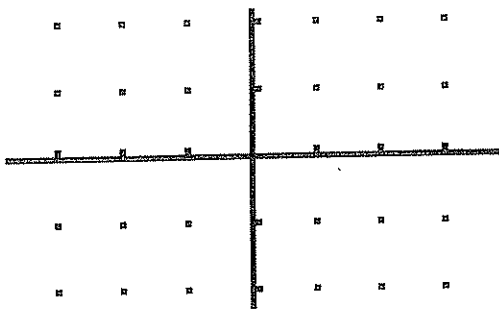
3. $\frac{dy}{dx} = x + y$



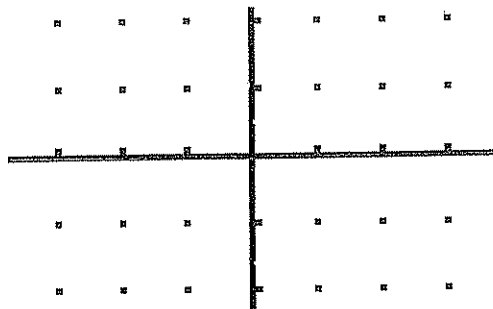
4. $\frac{dy}{dx} = 2x$



5. $\frac{dy}{dx} = y - 1$

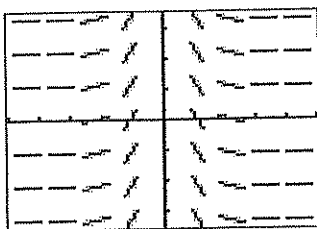


6. $\frac{dy}{dx} = -\frac{y}{x}$

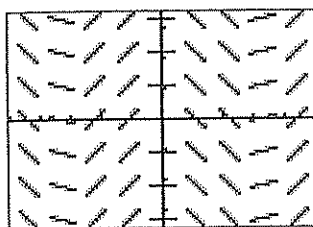


Match each slope field with the equation that the slope field could represent.

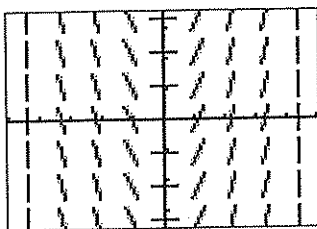
(A)



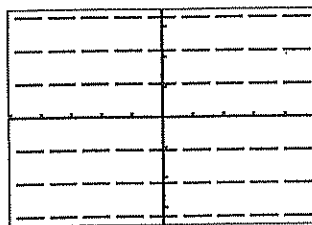
(B)



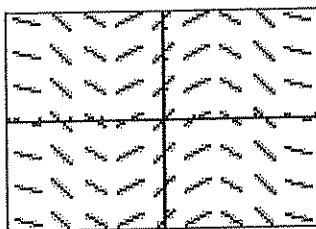
(C)



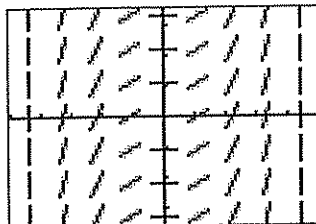
(D)



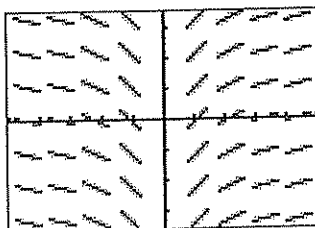
(E)



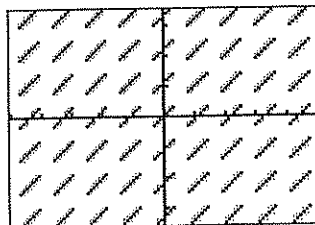
(F)



(G)



(H)



7. $y=1$

8. $y=x$

9. $y=x^2$

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

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

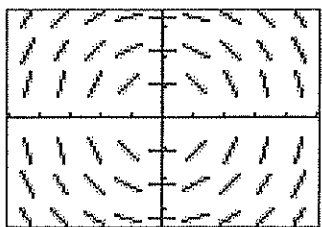
12. $y=\sin x$

13. $y=\cos x$

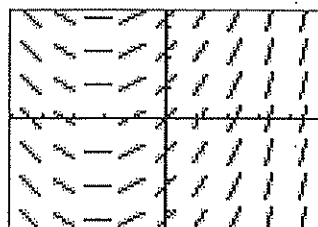
14. $y=\ln|x|$

Match the slope fields with their differential equations.

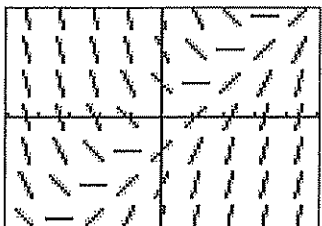
(A)



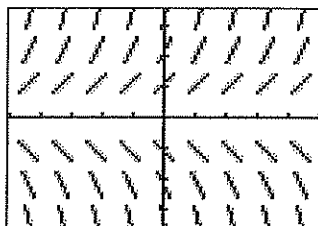
(B)



(C)



(D)



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

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

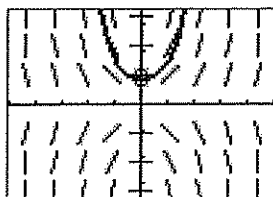
16. $\frac{dy}{dx} = y$

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

19. The calculator drawn slope field for the differential equation $\frac{dy}{dx} = xy$ is shown in the figure below. The solution curve passing through the point $(0, 1)$ is also shown.

(a) Sketch the solution curve through the point $(0, 2)$.

(b) Sketch the solution curve through the point $(0, -1)$.



20. The calculator drawn slope field for the differential equation $\frac{dy}{dx} = x + y$ is shown in the figure below.

(a) Sketch the solution curve through the point $(0, 1)$.

(b) Sketch the solution curve through the point $(-3, 0)$.

