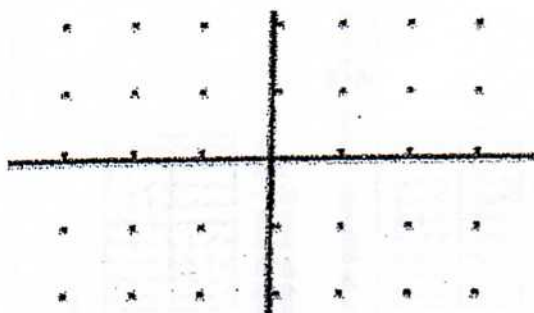


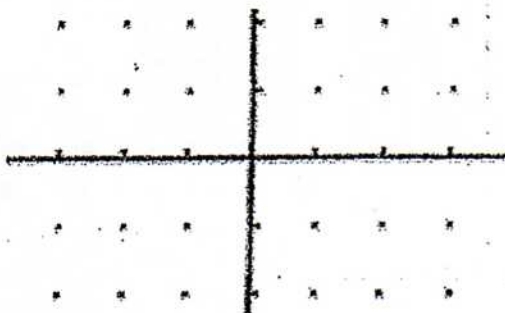
SLOPE FIELDS

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

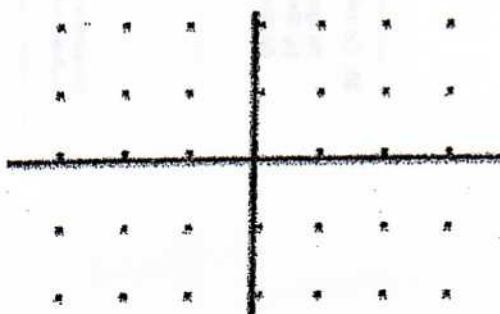
1. $\frac{dy}{dx} = x + 1$



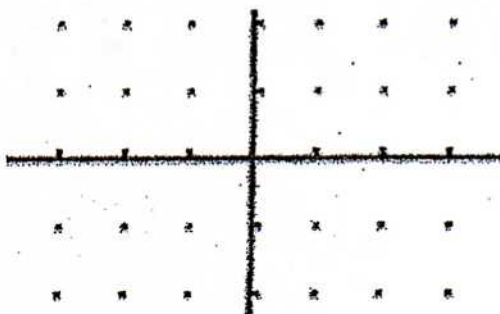
2. $\frac{dy}{dx} = 2y$



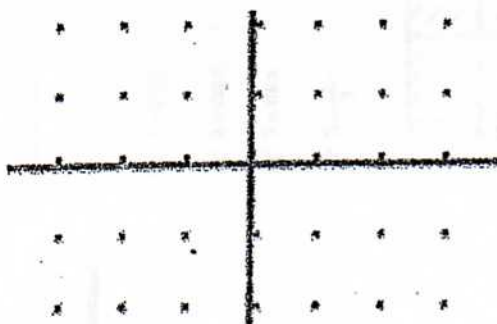
3. $\frac{dy}{dx} = x + y$



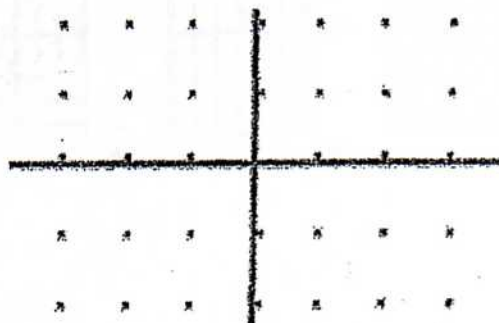
4. $\frac{dy}{dx} = 2x$



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

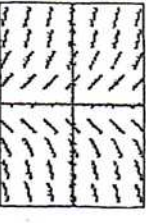
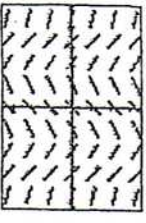
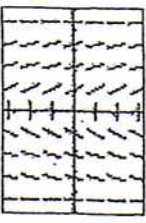
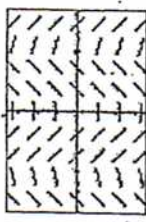
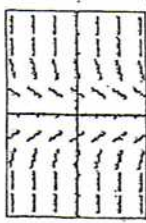


6. $\frac{dy}{dx} = -\frac{y}{x}$



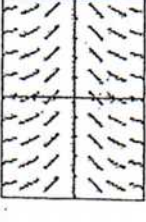
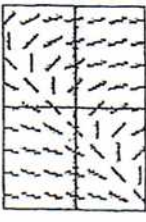
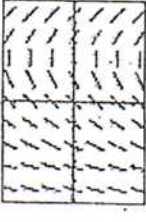
Match each slope field with the equation that the slope field could represent.

(A) (B)



Match the slope fields with their differential equations.

(A) (B)



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

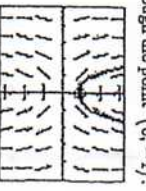
17. $\frac{dy}{dx} = x-y$

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).



- 7. $y=1$
- 8. $y=x$
- 9. $y=x^2$
- 10. $y=\frac{1}{6}x^3$
- 11. $y=\frac{1}{x}$
- 12. $y=\sin x$
- 13. $y=\cos x$
- 14. $y=\ln|x|$

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