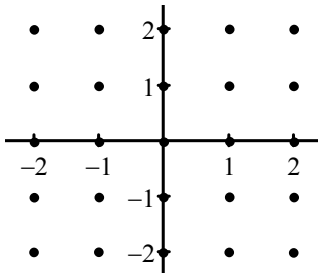
7.3 Sketching Slope Fields

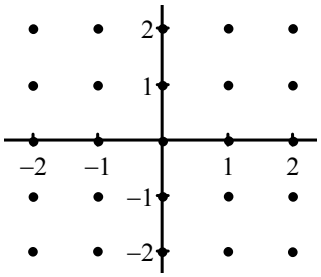
Calculus Name: _____ **CA #1**

Draw a slope field for each of the following differential equations. Use each of the coordinate points shown in the graph.

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



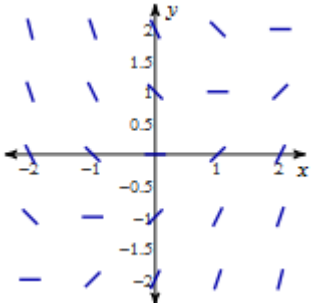
2. $\frac{dy}{dx} = -\frac{x}{y}$



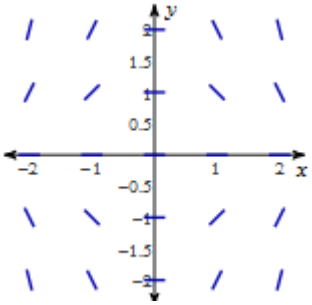
Match the differential equation with its slope field.

3. $\frac{dy}{dx} = xy$

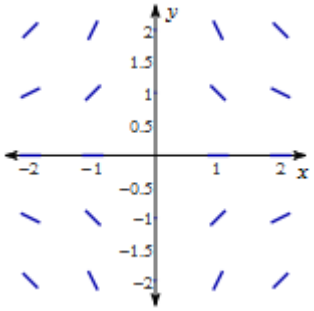
(A)



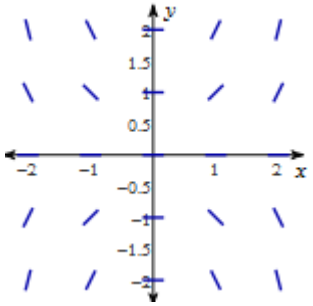
(B)



(C)

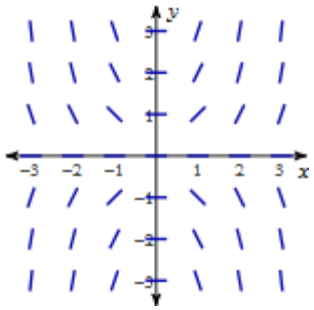


(D)

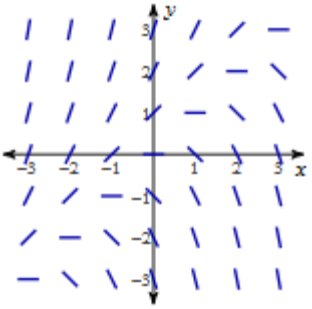


4. $\frac{dy}{dx} = x - y$

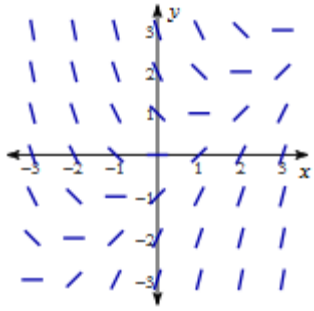
(A)



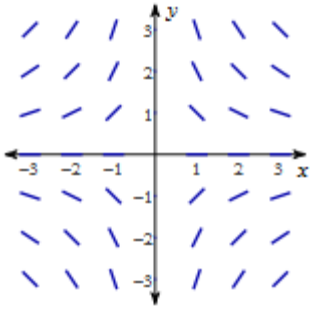
(B)



(C)

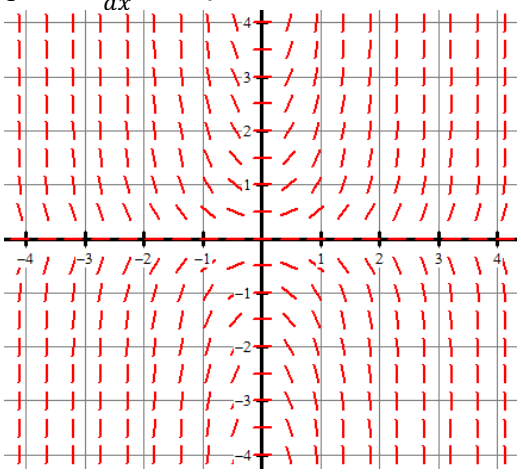


(D)



5. The figure below shows the slope field for the differential equation $\frac{dy}{dx} = 2xy$

Let f be the function that satisfies the given differential equation. Write an equation for the tangent line to the curve $y = f(x)$ through the point $(-2, 3)$.



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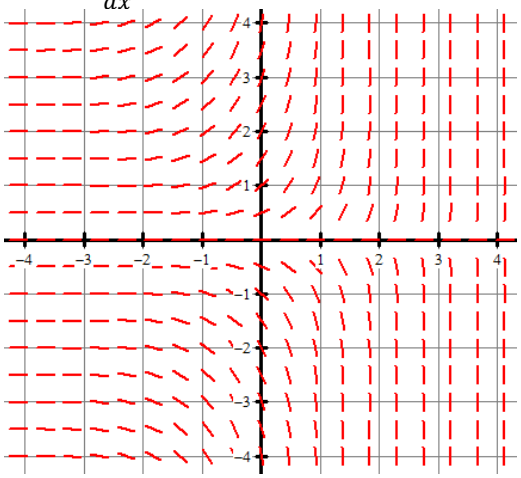
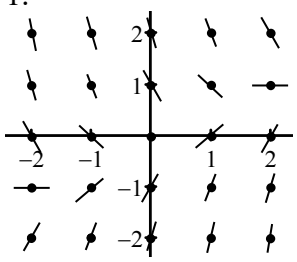
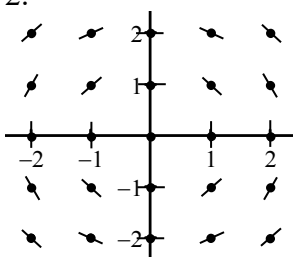
6. The figure below shows the slope field for the differential equation $\frac{dy}{dx} = e^x y$

Let f be the function that satisfies the given differential equation. Write an equation for the tangent line to the curve $y = f(x)$ through the point $(0, -3)$.



Answers to 7.3 CA #1

1. 	2. 	3. D	4. C
		5. $y - 3 = -12(x + 2)$	6. $y + 3 = -3x$