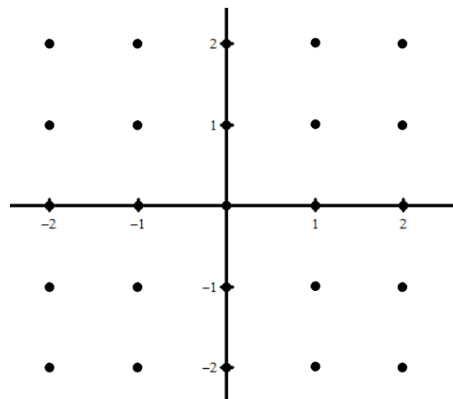


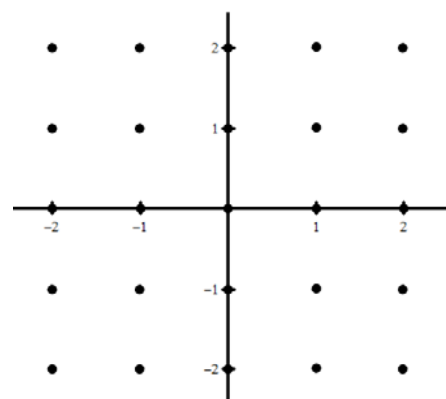
Corrective Assignment

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

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

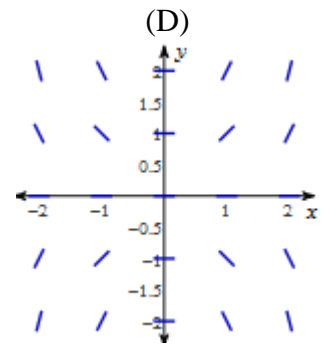
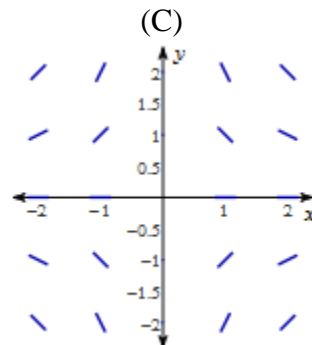
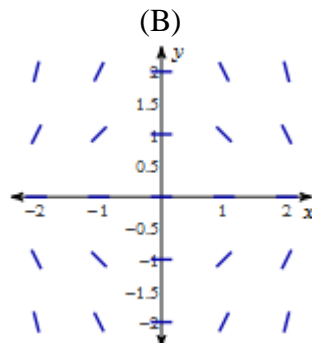
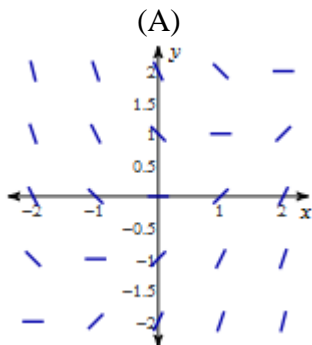


2. $\frac{dy}{dx} = \frac{2x}{y}$

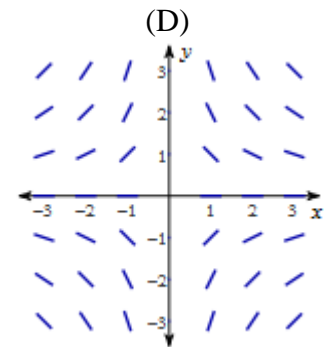
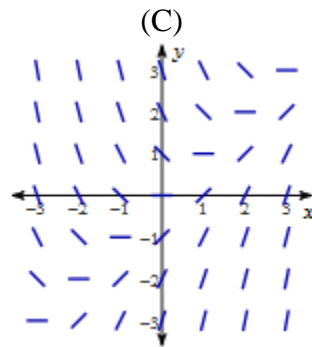
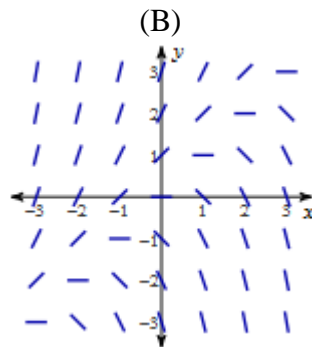
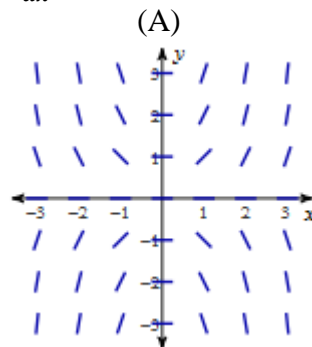


Match the differential equation with its slope field.

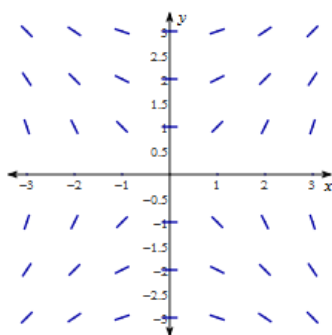
3. $\frac{dy}{dx} = xy$



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



5. Match the slope field to the differential equation.



(A) $\frac{dy}{dx} = x + y$

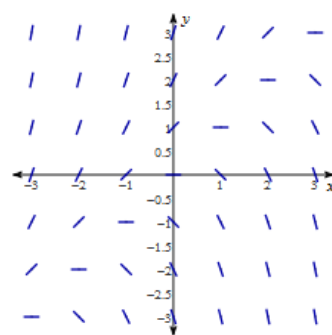
(B) $\frac{dy}{dx} = \frac{x}{y}$

(C) $\frac{dy}{dx} = \frac{y}{x}$

(D) $\frac{dy}{dx} = (x - 1)y$

(E) $\frac{dy}{dx} = x(y - 1)$

6. Match the slope field to the differential equation.



(A) $\frac{dy}{dx} = y - x$

(B) $\frac{dy}{dx} = -\frac{x}{y}$

(C) $\frac{dy}{dx} = -\frac{y}{x}$

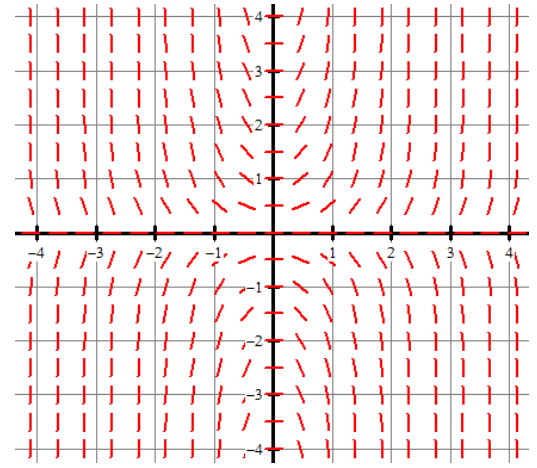
(D) $\frac{dy}{dx} = (x - 1)y$

(E) $\frac{dy}{dx} = x(y - 1)$

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

a) Calculate $\frac{dy}{dx}$ at the point $(-2,3)$ and verify that the result agrees with the figure.

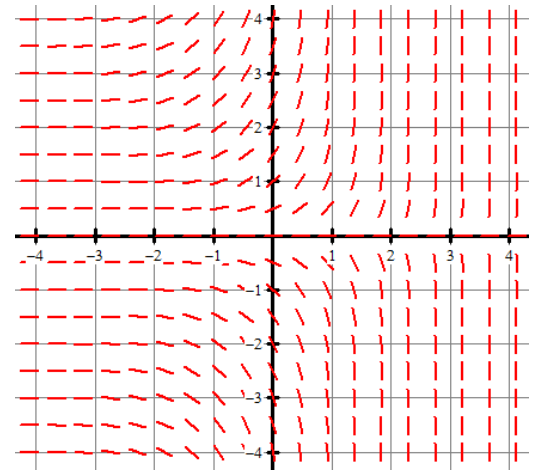
b) Sketch the graph of the particular solution of the differential equation that contains the point $(0,1)$.



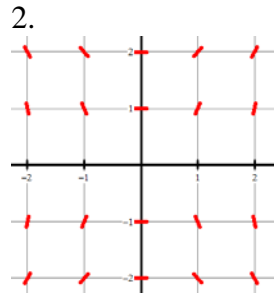
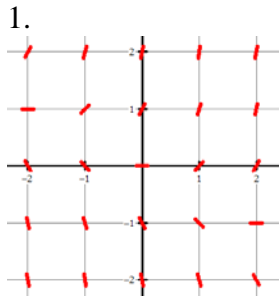
8. The figure below shows the slope field for the differential equation $\frac{dy}{dx} = e^{xy}$

a) Calculate $\frac{dy}{dx}$ at the point $(0, -3)$ and verify that the result agrees with the figure.

b) Sketch the graph of the particular solution of the differential equation that contains the point $(0,2)$.



ANSWERS TO CORRECTIVE ASSIGNMENT



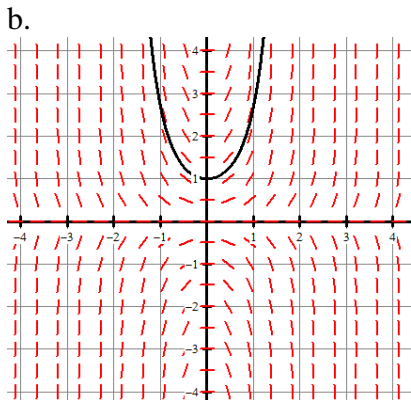
3. D

4. C

5. B

6. A

7.
a. $y - 3 = -12(x + 2)$



8.
a. $y + 3 = -3x$

