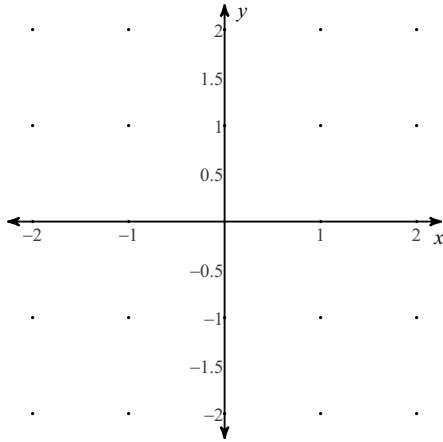


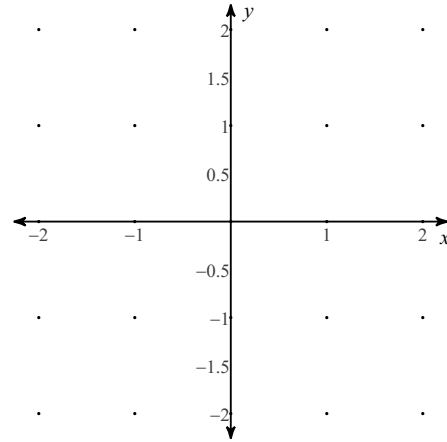
# Slope Fields

Sketch the slope field for each differential equation.

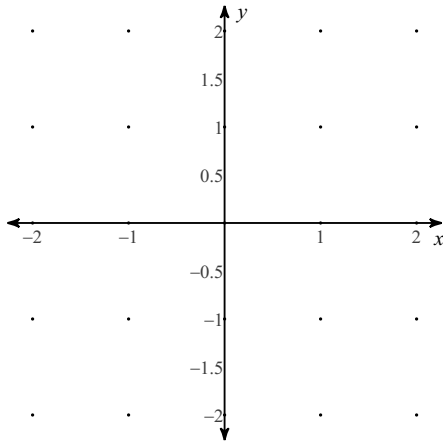
1)  $\frac{dy}{dx} = \frac{y}{x}$



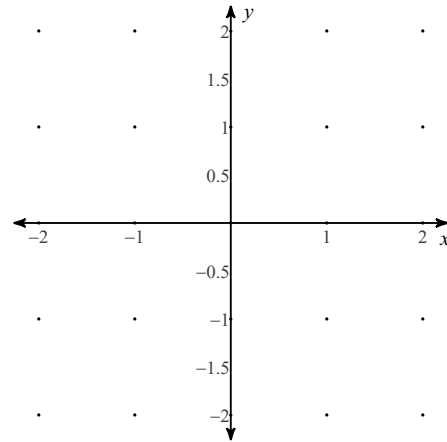
2)  $\frac{dy}{dx} = x - y$



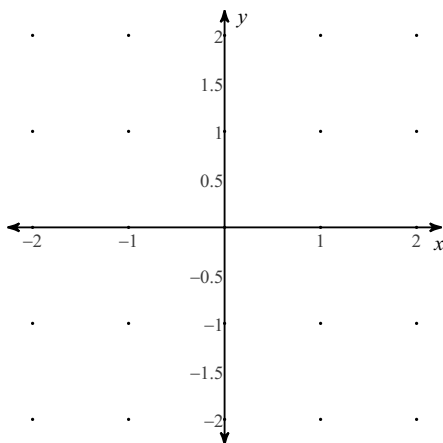
3)  $\frac{dy}{dx} = -\frac{1}{x}$



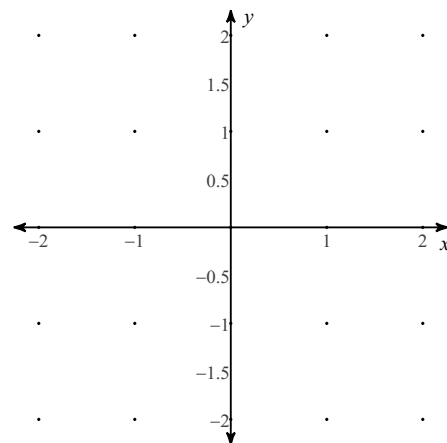
4)  $\frac{dy}{dx} = x^2$



5)  $\frac{dy}{dx} = xy$

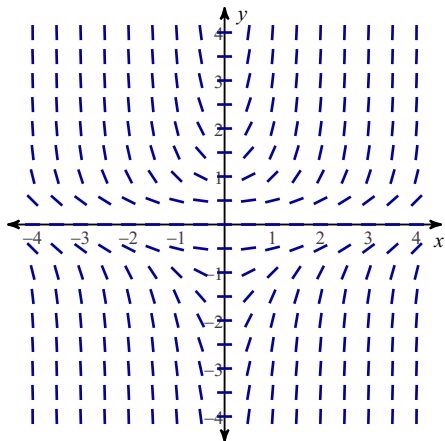


6)  $\frac{dy}{dx} = y^2$

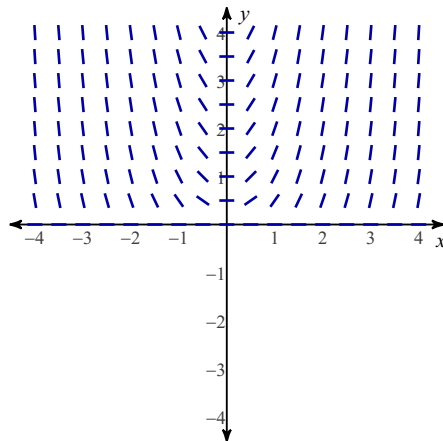


For each problem, find the particular solution of the differential equation that satisfies the initial condition. Sketch the solution on the provided graph.

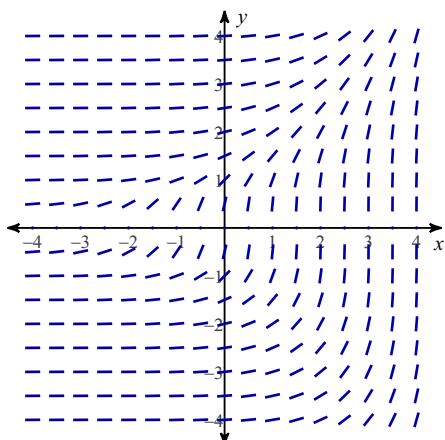
7)  $\frac{dy}{dx} = xy^2, y(2) = -\frac{1}{3}$



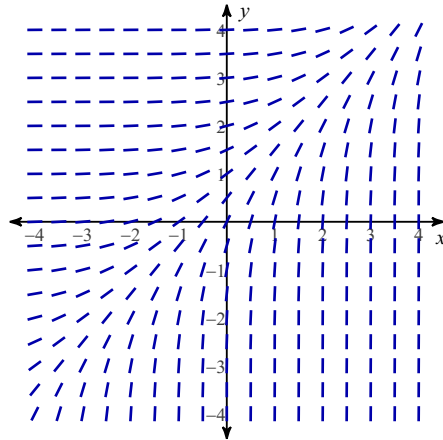
8)  $\frac{dy}{dx} = 2x\sqrt{y}, y(-1) = \frac{9}{4}$



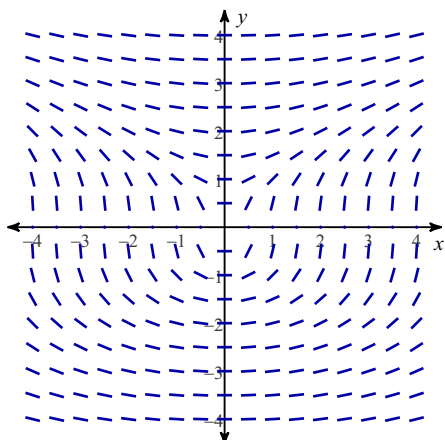
9)  $\frac{dy}{dx} = \frac{e^x}{y^2}, y(2) = \sqrt[3]{3e^2 + 2}$



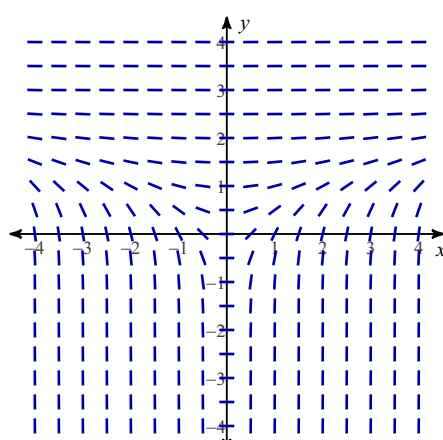
10)  $\frac{dy}{dx} = 2e^{x-y}, y(-3) = \ln \frac{2e^3 + 2}{e^3}$



11)  $\frac{dy}{dx} = \frac{x}{y^2}, y(2) = \sqrt[3]{7}$



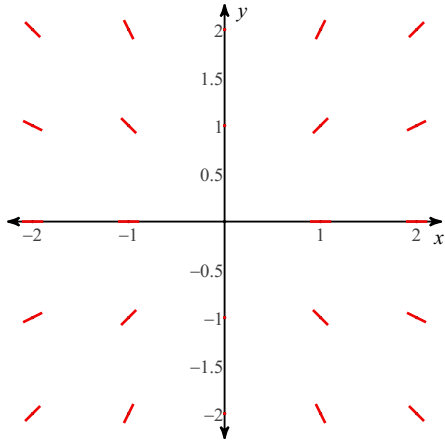
12)  $\frac{dy}{dx} = \frac{2x}{e^{2y}}, y(2) = \frac{\ln 9}{2}$



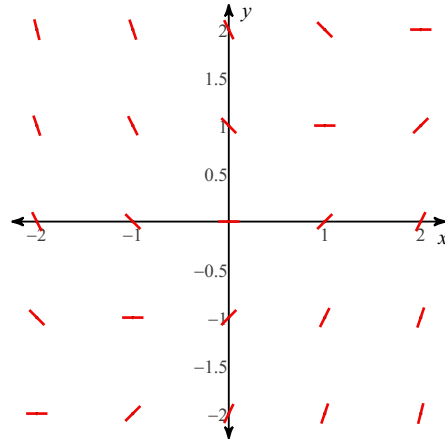
# Slope Fields

Sketch the slope field for each differential equation.

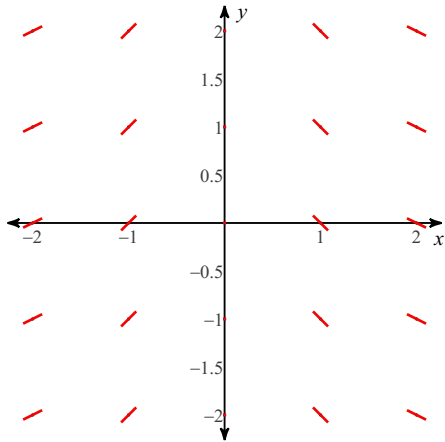
1)  $\frac{dy}{dx} = \frac{y}{x}$



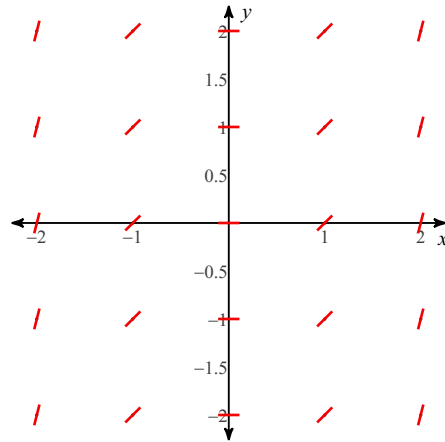
2)  $\frac{dy}{dx} = x - y$



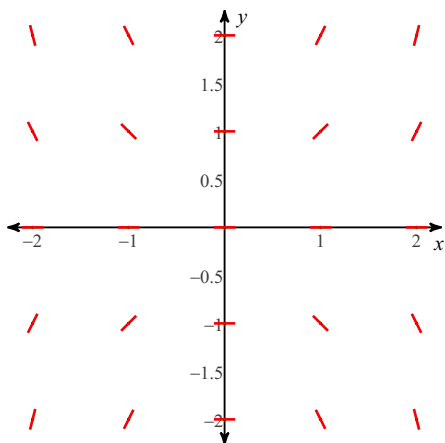
3)  $\frac{dy}{dx} = -\frac{1}{x}$



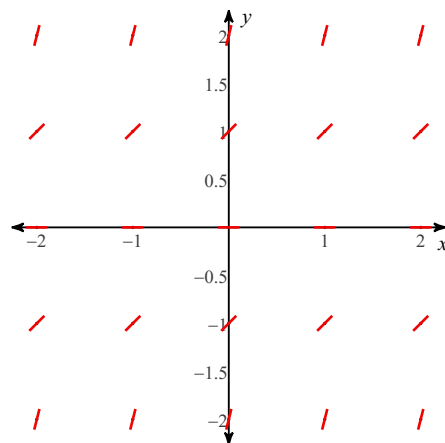
4)  $\frac{dy}{dx} = x^2$



5)  $\frac{dy}{dx} = xy$

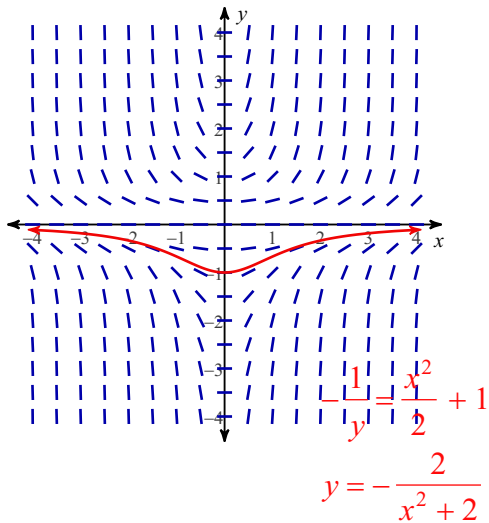


6)  $\frac{dy}{dx} = y^2$

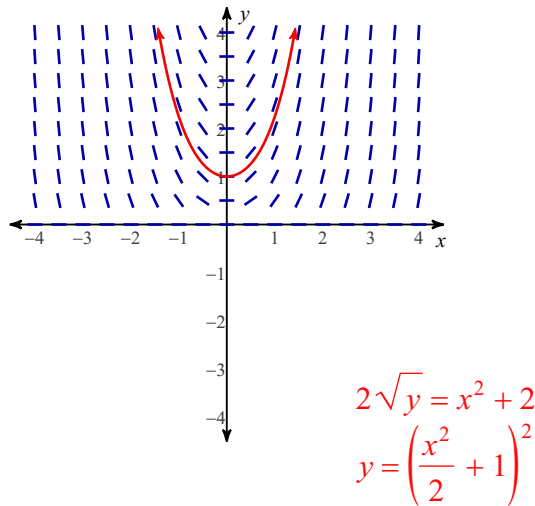


For each problem, find the particular solution of the differential equation that satisfies the initial condition. Sketch the solution on the provided graph.

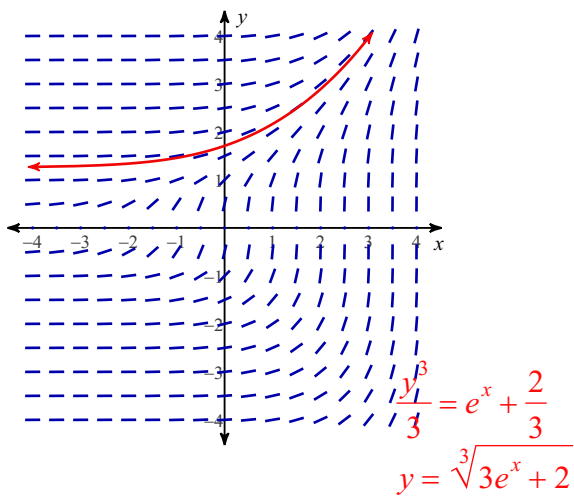
7)  $\frac{dy}{dx} = xy^2, y(2) = -\frac{1}{3}$



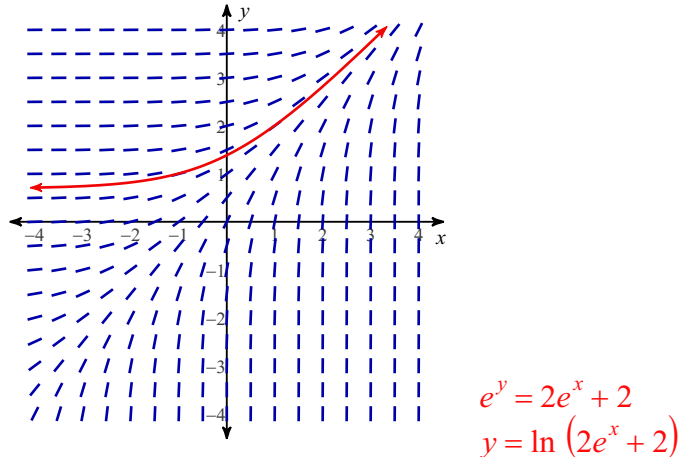
8)  $\frac{dy}{dx} = 2x\sqrt{y}, y(-1) = \frac{9}{4}$



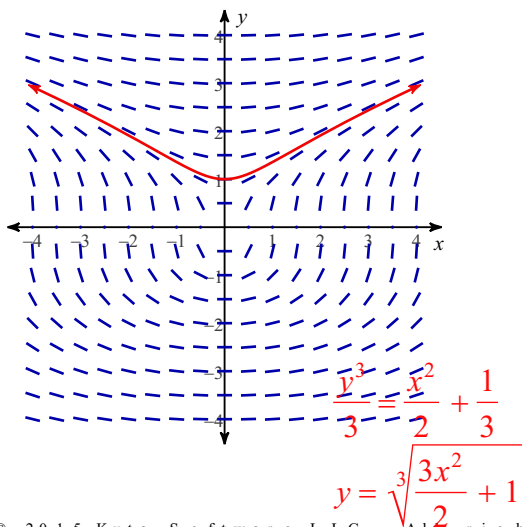
9)  $\frac{dy}{dx} = \frac{e^x}{y^2}, y(2) = \sqrt[3]{3e^2 + 2}$



10)  $\frac{dy}{dx} = 2e^{x-y}, y(-3) = \ln \frac{2e^3 + 2}{e^3}$



11)  $\frac{dy}{dx} = \frac{x}{y^2}, y(2) = \sqrt[3]{7}$



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