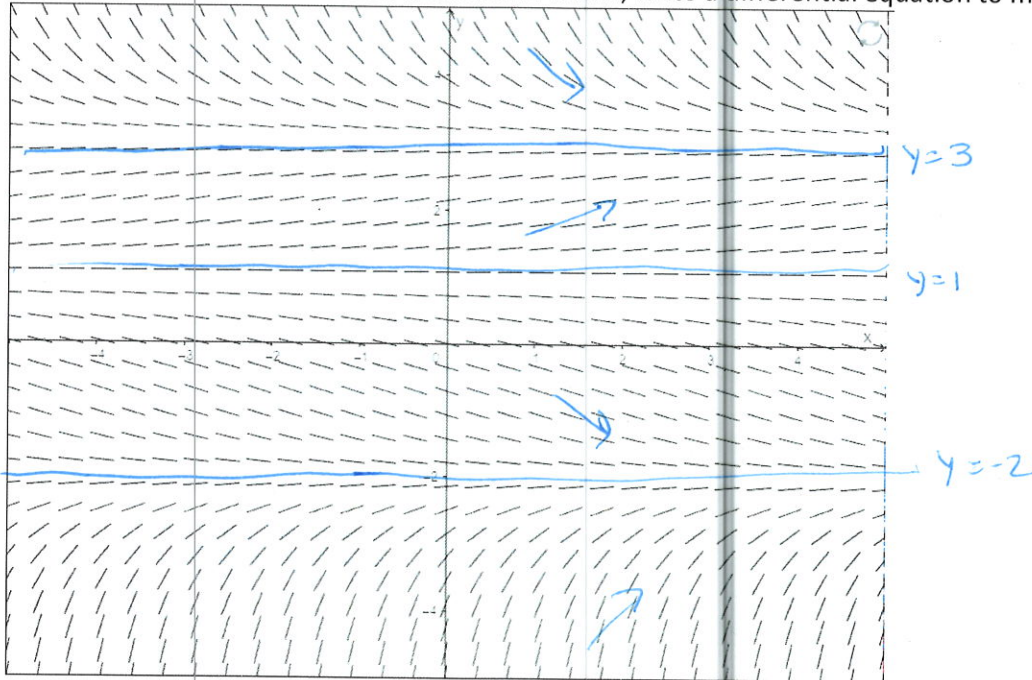


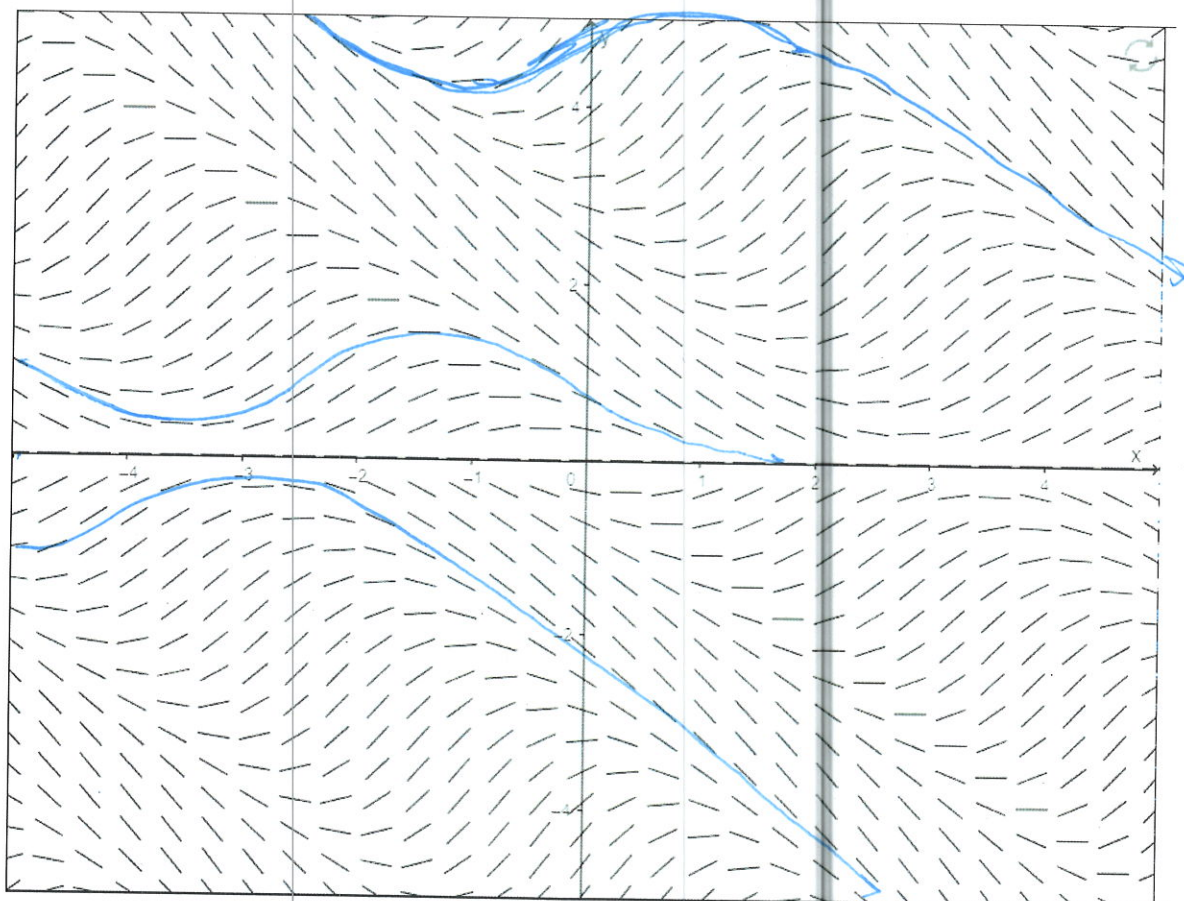
Instructions: Show all work. Use exact answers unless otherwise asked to round.

1. Given the autonomous direction field shown below, write a differential equation to model it.



$$dy/dt = k(y-3)(y-1)(y+2) \quad k < 0$$

2. Use technology to graph the direction field for $\frac{dy}{dx} = -\sqrt[3]{y} \sin(x+y)$. On the direction field you produce, draw three trajectories through the field.



answers will vary