

Calculus Seventh Edition

Larson/Hostetler/Edwards

Name _____

Date _____

Class _____

Instructor _____

5.9 Exercise 52 (page 393)

A differential equation, a point, and a slope field are given. (a) Sketch two approximate solutions of the differential equation on the slope field, one of which passes through the indicated point. (b) Use integration to find the particular solution of the differential equation and use a graphing utility to graph the solution. Compare the result with the sketches in part (a).

$$\frac{dy}{dx} = x\sqrt{16 - y^2}, \quad (0, -2)$$

