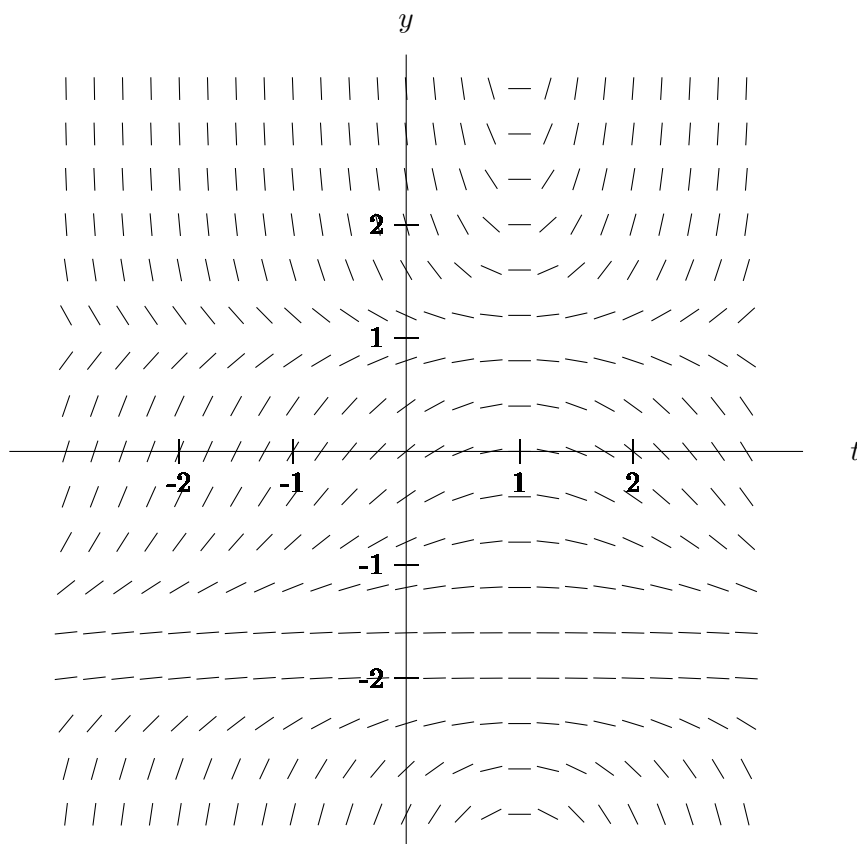


5. [8 points] The graph of a slope field corresponding to a differential equation is shown below.



For all parts of this problem, no work is required and very little partial credit will be given.

- a. [2 points] On the slope field, sketch a solution curve passing through the point $(0, 0)$.
- b. [2 points] If you approximated the value of $y(1)$ using Euler's method starting at the point $(0, 0)$, would your approximated value be an overestimate or underestimate? Circle your answer.

OVERESTIMATE

UNDERESTIMATE

- c. [4 points] Which of the following differential equations could correspond to the slope field above? **Circle all that apply.**

$$\frac{dy}{dt} = (t - 1)(y - 1.1)(y + 1.8)^2$$

$$\frac{dy}{dt} = (t - 1)(y + 1.1)(y - 1.9)^2$$

$$\frac{dy}{dt} = (t - 1)(0.9 - y)(y + 1.8)^2$$

$$\frac{dy}{dt} = (t - 1)(y - 0.9)(y + 1.9)^4$$

$$\frac{dy}{dt} = (1 - t)(y - 1.1)(y + 1.9)^4$$