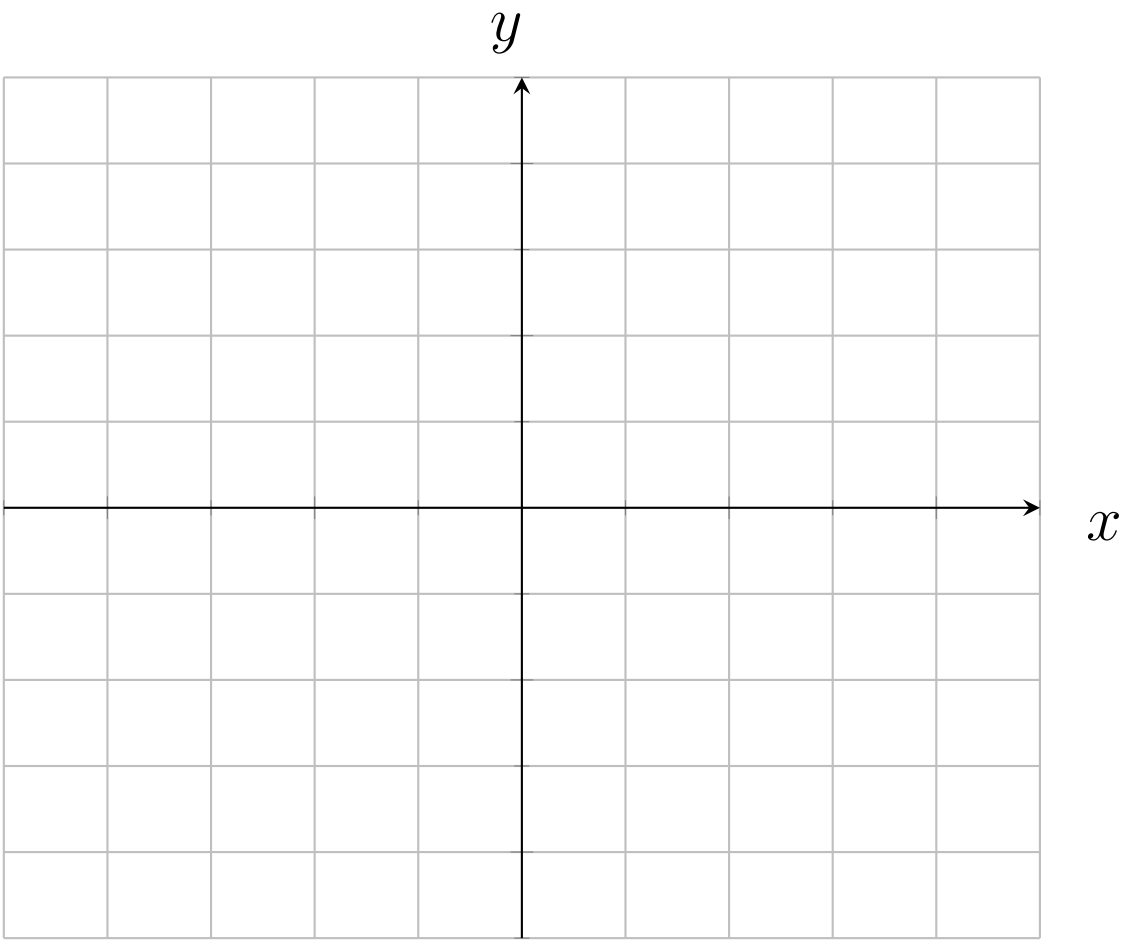
Worksheet 2 / 10 points

Name: .

Construct a slope field using isoclines for the differential equation

$$y' = x^2 + y^2$$



Include an integral curve containing the point $(0, 0)$ on the slope field.

Solve the following separable differential equations. If possible, give a particular solution which cannot be obtained by any choice of constants.

a. $x\ dx + 2e^y\ dy = 0$

b. $y' = x \sin x\sqrt{y+1}$

c. $y\ dx + 3x^2\ dy = 5\ dx$