

7. (3 points each) The following each require a short answer with no explanation.

(a) Give a function  $f(x)$  so that the integral  $\int_{-1}^2 f(x) dx$  is an *improper* integral.

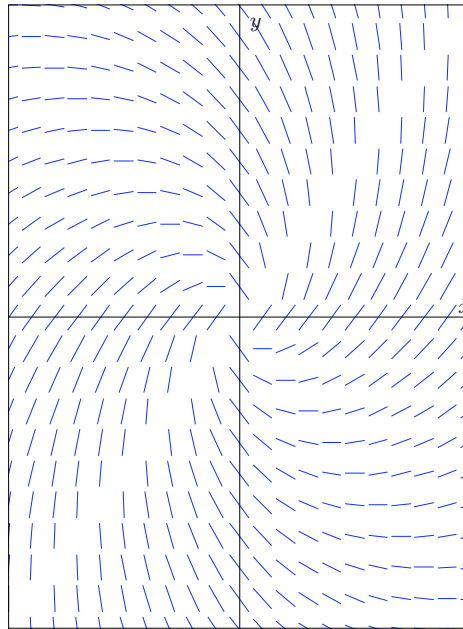
(b) A slope field is shown below. Choose the differential equation that matches the given slope field.

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

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

(C)  $\frac{dy}{dx} = \frac{x+y}{x-y}$

(D)  $\frac{dy}{dx} = \frac{x-y}{x+y}$



*(This problem continues on the next page.)*