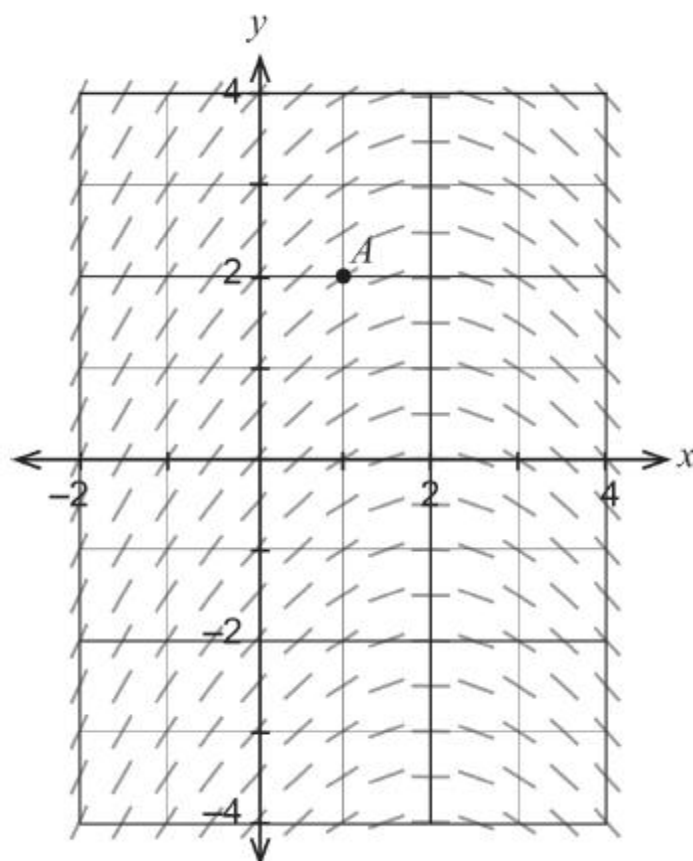


Question 18**(7 marks)**

A first-order differential equation has a slope field as shown in the diagram below.



- (a) Determine the general differential equation that would yield this slope field. (3 marks)

The slope field at point $A(1, 2)$ has a value of 0.5.

- (b) Determine the equation for the curve $y = f(x)$ containing point A . (4 marks)