6. Consider the differential equation $\dfrac{dy}{dx} = -\dfrac{2x}{y}$.

   (a) On the axes provided, sketch a slope field for the given differential equation at the twelve points indicated.
      (**Note: Use the axes provided in the pink test booklet.**)
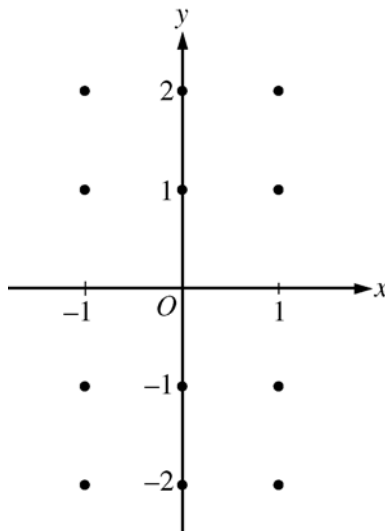
   (b) Let $y = f(x)$ be the particular solution to the differential equation with the initial condition $f(1) = -1$. Write an equation for the line tangent to the graph of f at $(1, -1)$ and use it to approximate $f(1.1)$.

   (c) Find the particular solution $y = f(x)$ to the given differential equation with the initial condition $f(1) = -1$.

WRITE ALL WORK IN THE TEST BOOKLET.

END OF EXAM