(1) Sketch in the solution curves $y(x)$ with initial conditions $y(-3) = 1$ and $y(3) = 1$. Briefly describe how other solutions behave as $x$ increases.
(2) Match the following ODEs to the graphs below, which show some representative solutions. In each plot, the $x$-axis is horizontal and the $y$-axis is vertical. For each match briefly explain your reasoning.

(a) $y' = \sin(xy)$

(b) $y' = y^2 - 1$

(c) $y' = 2x + y$

(d) $y' = \sin(x) \sin(y)$

(e) $y' = y/x^2 - 1$

(f) $y' = \sin(3x)$