1. (3 pts each) Find \( \frac{dy}{dx} \).
   
   (a) \( y = e^x \sec x \)
   
   (b) \( y = \tan \left( \frac{x}{1+x^2} \right) \)
2. (4pts) Find the points on the ellipse \( x^2 + 2y^2 = 1 \) where the tangent line has slope 1.