Name_____ID____Section____

Note: Second question is on the other side of the sheet.

Q1. Solve the diff equation
$$\sin t \cos y \frac{dy}{dt} + \cos t \sin y = 0$$

Q2. Find the general solution of $\cos^2 x \sin x \frac{dy}{dx} + (\cos^3 x)y = 1$. Give the largest interval over which the solution is valid. Determine if there is any transient term in the solution.