Name_____ID_____Section_____

Quiz No: 2 **Math 260**

1. Solve the exact differential equation $2x(\sin y)dx + x^2 \cos y dy = 0$.
2. Solve the separable differential equation $(1+y^2)dy/dx = x\cos x$.
3. A metal bar whose temperature is $350^o F$ is placed in a room whose temperature is constant at $70^o F$. After two minutes, the temperature of the metal bar is $210^o F$. Use Newton's law of cooling to determine the temperature of the bar after four minutes.
4. Solve the initial value problem $dy/dx - y = (11/8)e^{-x/3}, \quad y(0) = -1$.
