QUIZ 2 & 3 FOR CALC 4: SECOND CHANCE

Name:_____ **RUID:**_____

(1) (For Quiz 2) Solve the initial value problem

$$\begin{cases} (t+1)y' - (t-1)y = 2e^t \\ y(0) = 1 \end{cases}$$

(2) (For Quiz 3) Find the maximal interval where the initial value problrem

$$\sin 2ty'(t) + \tan 4ty(t) = \frac{1}{t}, y(\frac{\pi}{4}) = 0$$

is guaranteed to have a unique solution.