Name: _____

Section: _____

1. Find the general solution to the differential equation

$$y'' - 3y' + 2y = te^{2t}.$$

Use the method of undetermined coefficients as part of your solution.

2. Use the method of variation of parameters to find a solution to

$$y'' + y = \sec(t)$$

on $(-\pi, \pi)$. (An integral that might be helpful to you is $\int \tan t dt = \ln(\cos t)$ whenever $t \in (-\pi, \pi)$.)