> Please show **all** your work and circle your answer! Please read the questions carefully. You can use the back of this quiz to write answers, but clearly indicate which problem you are solving. You have 15 minutes for this quiz.

Name:_____

1. (3pts) Using variation of parameters, solve the following differential equation:

$$\begin{cases} y'' + y = \sec x \\ y(0) = 7 \\ y(\pi/3) = 0 \end{cases}$$

2. (2pts) Write the general solution to the following system of differential equations:

$$\begin{cases} x' + 2x - y = 0 \\ y' - x + 2y = 0 \end{cases}$$