Name:

You have 20 minutes to do this quiz. You may not use any books or notes while you do the quiz nor discuss the quiz with anyone. You may not use a calculator. Show your work clearly.

1. Consider the 2nd order differential equation \( \frac{d^2y}{dt^2} + 7 \frac{dy}{dt} + 12y = 0 \)

   a. Give the general solution to this equation.

   b. Re-write this equation as a system of two equations in terms of variables \( y \) and \( v = y' \).

Self evaluation: (Circle) Rate your level of understanding of the material on the quiz:

\[ \text{Mastery} \quad \text{Developing} \quad \text{Not Yet} \]