Name: _____

Directions: Show all work. No credit for answers without work. This quiz has 12 points but will be graded out of 10.

1. [**3 points**] Find the general solution to $y'' + 5y' = e^{4x}$.

2. [**3 points**] Find a particular solution to $y'' - y = e^x + 7$.

3. [**2 points**] State the definition of the Laplace transform of $f(t)$.

4. [**2 points**] Find the Laplace transform of $7t - 3e^{2t}$.

5. [**2 points**] Find the inverse Laplace transform of $\dfrac{3}{s-6}$.