

Name: \_\_\_\_\_

Date: \_\_\_\_\_

MA 226 Quiz 11 – A

**Please show your work.**

1. (5 pts) Find the solution of the given initial value problem:

$$\frac{d^2y}{dt^2} + 6\frac{dy}{dt} + 8y = 2t + e^t \quad \text{with} \quad y(0) = y'(0) = 0$$

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2. (5 pts) For the equation given below find the frequency of the beats and the frequency of the rapid oscillation.

$$\frac{d^2y}{dt^2} + 11y = 4\cos(3t)$$