MATH 100 Name: _____
Worksheet 7

1. A mass weighing 16 lbs stretches a spring by 3 inches. The mass is attached to a viscous damper with a damping constant of 2 lb-sec/ft. If the mass is set in motion from its equilibrium position with a downward velocity of 3 in/sec, find its position at any time t.

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2. Find the solution of the DEs. You may leave your answers in implicit form.
   a. $y'' + y' = e^{-t}$
   b. $y'' + (y')^2 = 2e^{-y}$