

Name: Last _____, First _____

You must show all work to get credit for you problems. NO work or explanations – no credit.
SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

1) Solve the differential equation: 1) _____

$$y'' + y' - 12y = 0 \text{ where } y \text{ is a function of } t$$

2) Solve the differential equation: 2) _____

$$y''' - 4y' = 0 \text{ where } y \text{ is a function of } t$$

3) Solve the differential equation: 3) _____

$$y''' + 4y'' + y' - 6y = 0 \text{ where } y \text{ is a function of } t$$

Answer Key

Testname: MATH-2012-QUIZ1-EXTRA EXTRA PRACTICE-SP11

1) $y = c_1 e^{-4t} + c_2 e^{3t}$

2) $y = c_1 + c_2 e^{2t} + c_3 e^{-2t}$

3) $y = c_1 e^{-3t} + c_2 e^{-2t} + c_3 e^t$