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| 1. The differential equation is  Select the correct answer.  ​   |  |  |  | | --- | --- | --- | |  | a. | first order linear | |  | b. | second order linear | |  | c. | third order linear | |  | d. | first order nonlinear | |  | e. | second order nonlinear |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 2/2/2016 11:28 AM | | *DATE MODIFIED:* | 12/16/2016 11:51 AM | |

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| 2. The differential equation is  Select the correct answer.  ​   |  |  |  | | --- | --- | --- | |  | a. | first order linear | |  | b. | second order linear | |  | c. | third order linear | |  | d. | first order nonlinear | |  | e. | second order nonlinear |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 2/2/2016 11:28 AM | | *DATE MODIFIED:* | 12/16/2016 11:51 AM | |

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| 3. The differential equation is  Select the correct answer.  ​   |  |  |  | | --- | --- | --- | |  | a. | first order linear | |  | b. | second order linear | |  | c. | third order linear | |  | d. | first order nonlinear | |  | e. | second order nonlinear |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 2/2/2016 11:28 AM | | *DATE MODIFIED:* | 12/16/2016 11:51 AM | |

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| 4. The differential equation is  Select the correct answer.  ​   |  |  |  | | --- | --- | --- | |  | a. | first order linear | |  | b. | second order linear | |  | c. | third order linear | |  | d. | first order nonlinear | |  | e. | second order nonlinear |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 2/2/2016 11:28 AM | | *DATE MODIFIED:* | 12/16/2016 11:51 AM | |

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| 5. The differential equation is  Select the correct answer.  ​   |  |  |  | | --- | --- | --- | |  | a. | first order linear | |  | b. | second order linear | |  | c. | third order linear | |  | d. | first order nonlinear | |  | e. | second order nonlinear |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 2/2/2016 11:28 AM | | *DATE MODIFIED:* | 12/16/2016 11:52 AM | |

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| 6. The values of *m* for which   is a solution of  are  Select the correct answer.  ​   |  |  |  | | --- | --- | --- | |  | a. | 2 and 4 | |  | b. | -2 and -3 | |  | c. | 3 and 4 | |  | d. | 2 and 3 | |  | e. | 1 and 5 |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 2/2/2016 11:28 AM | | *DATE MODIFIED:* | 12/16/2016 11:52 AM | |

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| 7. The values of *m* for which   is a solution of   are  Select the correct answer.  ​   |  |  |  | | --- | --- | --- | |  | a. | 2 and 4 | |  | b. | -2 and -4 | |  | c. | 3 and 5 | |  | d. | 2 and 3 | |  | e. | 1 and 5 |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 2/2/2016 11:28 AM | | *DATE MODIFIED:* | 12/16/2016 11:52 AM | |

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| 8. The values of *c* for which is a constant solution of  are  Select the correct answer.  ​   |  |  |  | | --- | --- | --- | |  | a. | 1 and 4 | |  | b. | -2 and -3 | |  | c. | 1 and -4 | |  | d. | -1 and 3 | |  | e. | 1 and 3 |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 2/2/2016 11:28 AM | | *DATE MODIFIED:* | 12/16/2016 11:52 AM | |

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| 9. The values of *m* for which   is a solution of  are  Select the correct answer.  ​   |  |  |  | | --- | --- | --- | |  | a. | 1 and 4 | |  | b. | -1 and 4 | |  | c. | 2 and 3 | |  | d. | -2 and -3 | |  | e. | -1 and 5 |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 2/2/2016 11:28 AM | | *DATE MODIFIED:* | 12/16/2016 11:52 AM | |

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| 10. In the circuit problem in the text, *C* stands for  Select the correct answer.  ​   |  |  |  | | --- | --- | --- | |  | a. | capacitance | |  | b. | resistance | |  | c. | current | |  | d. | inductance | |  | e. | charge on the capacitor |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 2/2/2016 11:28 AM | | *DATE MODIFIED:* | 12/16/2016 11:52 AM | |

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| 11. In the circuit problem in the text, the units of inductance, *L*, are  Select the correct answer.  ​   |  |  |  | | --- | --- | --- | |  | a. | ohms | |  | b. | farads | |  | c. | amperes | |  | d. | henrys | |  | e. | coulombs |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 2/2/2016 11:28 AM | | *DATE MODIFIED:* | 12/16/2016 11:53 AM | |

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| 12. In the falling body problem, the units of acceleration might be  Select the correct answer.  ​   |  |  |  | | --- | --- | --- | |  | a. | meters per second | |  | b. | feet per second | |  | c. | meters per second per second | |  | d. | kilograms per meter | |  | e. | kilograms per meter per second |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 2/2/2016 11:28 AM | | *DATE MODIFIED:* | 12/16/2016 11:53 AM | |

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| 13. The differential equation is  Select the correct answer.  ​   |  |  |  | | --- | --- | --- | |  | a. | first order linear | |  | b. | second order linear | |  | c. | third order linear | |  | d. | first order nonlinear | |  | e. | second order nonlinear |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 2/2/2016 11:28 AM | | *DATE MODIFIED:* | 12/16/2016 11:53 AM | |

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| 14. The differential equation is  Select the correct answer.  ​   |  |  |  | | --- | --- | --- | |  | a. | first order linear | |  | b. | second order linear | |  | c. | third order linear | |  | d. | first order nonlinear | |  | e. | second order nonlinear |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 2/2/2016 11:28 AM | | *DATE MODIFIED:* | 12/16/2016 11:53 AM | |

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| 15. The differential equation is  Select the correct answer.  ​   |  |  |  | | --- | --- | --- | |  | a. | first order linear | |  | b. | second order linear | |  | c. | third order linear | |  | d. | first order nonlinear | |  | e. | second order nonlinear |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 2/2/2016 11:28 AM | | *DATE MODIFIED:* | 12/16/2016 11:53 AM | |

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| 16. The differential equation is  Select the correct answer.  ​   |  |  |  | | --- | --- | --- | |  | a. | first order linear | |  | b. | second order linear | |  | c. | third order linear | |  | d. | first order nonlinear | |  | e. | second order nonlinear |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 2/2/2016 11:28 AM | | *DATE MODIFIED:* | 12/16/2016 11:53 AM | |

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| 17. The differential equation is  Select the correct answer.  ​   |  |  |  | | --- | --- | --- | |  | a. | first order linear | |  | b. | second order linear | |  | c. | third order linear | |  | d. | first order nonlinear | |  | e. | second order nonlinear |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 2/2/2016 11:28 AM | | *DATE MODIFIED:* | 12/16/2016 11:54 AM | |

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| 18. The values of *m* for which is a solution of  are  Select the correct answer.  ​   |  |  |  | | --- | --- | --- | |  | a. | 4 and -5 | |  | b. | -4 and -5 | |  | c. | 3 and 6 | |  | d. | 4 and 5 | |  | e. | 3 and 5 |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 2/2/2016 11:28 AM | | *DATE MODIFIED:* | 12/16/2016 11:54 AM | |

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| 19. The values of *m* for which is a solution of  are  Select the correct answer.  ​   |  |  |  | | --- | --- | --- | |  | a. | -3 and 4 | |  | b. | -2 and -6 | |  | c. | 3 and 4 | |  | d. | 2 and 6 | |  | e. | 3 and -4 |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 2/2/2016 11:28 AM | | *DATE MODIFIED:* | 12/16/2016 11:54 AM | |

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| 20. The values of *c* for which is a constant solution of  are  Select the correct answer.  ​   |  |  |  | | --- | --- | --- | |  | a. | 1 and 6 | |  | b. | -1 and 6 | |  | c. | 1 and -6 | |  | d. | -2 and 3 | |  | e. | 2 and 3 |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 2/2/2016 11:28 AM | | *DATE MODIFIED:* | 12/16/2016 11:54 AM | |

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| 21. The values of *m* for which  is a solution of  are  Select the correct answer.  ​   |  |  |  | | --- | --- | --- | |  | a. | 1 and 7 | |  | b. | -1 and 6 | |  | c. | 1 and 6 | |  | d. | 1 and -6 | |  | e. | -1 and 7 |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 2/2/2016 11:28 AM | | *DATE MODIFIED:* | 12/16/2016 11:54 AM | |

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| 22. In the circuit problem in the text, *R* stands for  Select the correct answer.  ​   |  |  |  | | --- | --- | --- | |  | a. | capacitance | |  | b. | resistance | |  | c. | current | |  | d. | inductance | |  | e. | charge on the capacitor |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 2/2/2016 11:28 AM | | *DATE MODIFIED:* | 12/16/2016 11:54 AM | |

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| 23. In the *LRC* circuit problem in the text, the units for *C*, are  Select the correct answer.  ​   |  |  |  | | --- | --- | --- | |  | a. | ohms | |  | b. | farads | |  | c. | amperes | |  | d. | henrys | |  | e. | coulombs |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 2/2/2016 11:28 AM | | *DATE MODIFIED:* | 12/16/2016 11:55 AM | |

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| 24. In the falling body problem, the units of acceleration might be  Select the correct answer.  ​   |  |  |  | | --- | --- | --- | |  | a. | centimeters per second | |  | b. | feet per second | |  | c. | feet per second per second | |  | d. | kilograms per centimeter | |  | e. | kilograms per centimeter per second |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 2/2/2016 11:28 AM | | *DATE MODIFIED:* | 12/16/2016 11:55 AM | |