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| 1. Find real numbers *a* and *b* such that the equation is true.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. |  | |  | b. |  | |  | c. | ​ | |  | d. |  | |  | e. |  |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *REFERENCES:* | 1.5.5 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:19 PM | | *DATE MODIFIED:* | 10/3/2014 6:36 AM | |

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| 2. Find real numbers *a* and *b* such that the equation is true.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | ​ | |  | b. | ​ | |  | c. | ​ | |  | d. | ​ | |  | e. | ​ |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *REFERENCES:* | 1.5.6 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:19 PM | | *DATE MODIFIED:* | 10/3/2014 6:44 AM | |

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| 3. Find real numbers *a* and *b* such that the equation is true.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | ​ | |  | b. | ​ | |  | c. | ​ | |  | d. | ​ | |  | e. | ​ |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *REFERENCES:* | 1.5.7 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:19 PM | | *DATE MODIFIED:* | 10/3/2014 6:53 AM | |

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| 4. Find real numbers *a* and *b* such that the equation is true.  ​  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | ​*a* = 0, *b* = – | |  | b. | ​​*a* = 0, *b* = – | |  | c. | ​​*a* = 0, *b* = – | |  | d. | ​​*a* = 0, *b* = –9 | |  | e. | ​​*a* = 0, *b* = –10 |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *REFERENCES:* | 1.5.8 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:19 PM | | *DATE MODIFIED:* | 10/3/2014 7:04 AM | |

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| 5. Write the complex number in standard form.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | ​ | |  | b. | ​ | |  | c. | ​ | |  | d. | ​ | |  | e. | ​ |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *REFERENCES:* | 1.5.9 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:19 PM | | *DATE MODIFIED:* | 10/3/2014 7:17 AM | |

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| 6. Write the complex number in standard form.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | 3 + *i*​ | |  | b. | 4 + *i* | |  | c. | 7 – *i* | |  | d. | 3 – *i* | |  | e. | 4 – *i* |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *REFERENCES:* | 1.5.11 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:19 PM | | *DATE MODIFIED:* | 10/3/2014 7:48 AM | |

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| 7. Write the complex number in standard form.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | *i* | |  | b. | –*i* | |  | c. | *i* | |  | d. | *i* | |  | e. | –*i* |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *REFERENCES:* | 1.5.13 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:19 PM | | *DATE MODIFIED:* | 10/3/2014 7:49 AM | |

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| 8. Write the complex number in standard form.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | 6*i* | |  | b. | –6*i* | |  | c. | 36*i* | |  | d. | 7*i* | |  | e. | –36*i* |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *REFERENCES:* | 1.5.14 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:19 PM | | *DATE MODIFIED:* | 10/3/2014 7:51 AM | |

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| 9. Write the complex number in standard form.  ​  –4*i* + *i*2  ​   |  |  |  | | --- | --- | --- | |  | a. | ​–1 + 4*i* | |  | b. | ​–1 + 7*i* | |  | c. | ​1 + 4*i* | |  | d. | ​1 – 4*i* | |  | e. | ​–1 – 4*i* |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *REFERENCES:* | 1.5.17 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:19 PM | | *DATE MODIFIED:* | 10/3/2014 8:02 AM | |

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| 10. Write the complex number in standard form.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | 17.64*i* | |  | b. | 4.2*i* | |  | c. | ​7.2*i* | |  | d. | –4.2*i* | |  | e. | –17.64*i* |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *REFERENCES:* | 1.5.19 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:19 PM | | *DATE MODIFIED:* | 10/3/2014 8:08 AM | |

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| 11. Write the complex number in standard form.  ​  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | ​–0.01*i* | |  | b. | ​​–0.0001*i* | |  | c. | ​3.01*i* | |  | d. | ​0.01*i* | |  | e. | ​0.0001*i* |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *REFERENCES:* | 1.5.20 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:19 PM | | *DATE MODIFIED:* | 10/3/2014 8:18 AM | |

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| 12. Perform the addition or subtraction and write the result in standard form.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | 16​ –  8*i* | |  | b. | ​15 –  7*i* | |  | c. | ​12 –  4*i* | |  | d. | ​14 –  6*i* | |  | e. | ​13 –  5*i* |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *REFERENCES:* | 1.5.21 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:19 PM | | *DATE MODIFIED:* | 10/3/2014 8:32 AM | |

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| 13. Perform the addition or subtraction and write the result in standard form.  ​  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | 5 | |  | b. | 7 | |  | c. | 9 | |  | d. | 8 | |  | e. | ​6 |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *REFERENCES:* | 1.5.23 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:19 PM | | *DATE MODIFIED:* | 10/3/2014 8:36 AM | |

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| 14. Perform the addition or subtraction and write the result in standard form.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | ​ | |  | b. | ​​ | |  | c. | ​ | |  | d. | ​ | |  | e. | ​ |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *REFERENCES:* | 1.5.27 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:19 PM | | *DATE MODIFIED:* | 10/3/2014 8:51 AM | |

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| 15. Perform the addition or subtraction and write the result in standard form.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | ​ | |  | b. | ​ | |  | c. | ​ | |  | d. | ​ | |  | e. | ​ |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *REFERENCES:* | 1.5.28 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:19 PM | | *DATE MODIFIED:* | 10/3/2014 8:59 AM | |

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| 16. Perform the addition or subtraction and write the result in standard form.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | ​ | |  | b. | ​ | |  | c. |  | |  | d. |  | |  | e. |  |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *REFERENCES:* | 1.5.30 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:19 PM | | *DATE MODIFIED:* | 10/3/2014 9:56 AM | |

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| 17. Perform the operation and write the result in standard form.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. |  | |  | b. |  | |  | c. |  | |  | d. |  | |  | e. |  |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *REFERENCES:* | 1.5.31 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:19 PM | | *DATE MODIFIED:* | 10/3/2014 10:24 AM | |

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| 18. Perform the operation and write the result in standard form.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. |  | |  | b. | ​ | |  | c. | ​ | |  | d. |  | |  | e. |  |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *REFERENCES:* | 1.5.33 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:19 PM | | *DATE MODIFIED:* | 10/3/2014 11:18 AM | |

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| 19. Perform the operation and write the result in standard form.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | 31 | |  | b. | 27 | |  | c. | 28 | |  | d. | 29 | |  | e. | 30 |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *REFERENCES:* | 1.5.35 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:19 PM | | *DATE MODIFIED:* | 10/3/2014 11:21 AM | |

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| 20. Perform the operation and write the result in standard form.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. |  | |  | b. |  | |  | c. |  | |  | d. |  | |  | e. |  |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *REFERENCES:* | 1.5.37 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:19 PM | | *DATE MODIFIED:* | 10/3/2014 11:26 AM | |

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| 21. Perform the operation and write the result in standard form.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | ​ | |  | b. | ​ | |  | c. | ​ | |  | d. | ​ | |  | e. | ​ |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *REFERENCES:* | 1.5.38 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:19 PM | | *DATE MODIFIED:* | 10/4/2014 3:05 AM | |

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| 22. Write the complex conjugate of the complex number. Then multiply the number by its complex conjugate.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | ​ | |  | b. | ​ | |  | c. | ​ | |  | d. | ​ | |  | e. | ​ |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *REFERENCES:* | 1.5.41 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:19 PM | | *DATE MODIFIED:* | 10/4/2014 3:08 AM | |

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| 23. Write the complex conjugate of the complex number. Then multiply the number by its complex conjugate.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | ​ | |  | b. | ​ | |  | c. | ​ | |  | d. | ​ | |  | e. | ​ |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *REFERENCES:* | 1.5.42 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:19 PM | | *DATE MODIFIED:* | 10/4/2014 3:11 AM | |

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| 24. Write the complex conjugate of the complex number. Then multiply the number by its complex conjugate.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | ​ | |  | b. | ​ | |  | c. | ​ | |  | d. | ​ | |  | e. | ​ |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *REFERENCES:* | 1.5.44 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:19 PM | | *DATE MODIFIED:* | 10/4/2014 3:15 AM | |

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| 25. Write the complex conjugate of the complex number. Then multiply the number by its complex conjugate.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | ​ | |  | b. | ​ | |  | c. | ​ | |  | d. | ​ | |  | e. | ​ |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *REFERENCES:* | 1.5.43 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:19 PM | | *DATE MODIFIED:* | 10/4/2014 3:17 AM | |

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| 26. Write the complex conjugate of the complex number. Then multiply the number by its complex conjugate.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | –38*i*, 39 | |  | b. | *i*, 39 | |  | c. | 1521*i*, 39 | |  | d. | –*i*, 39 | |  | e. | ​–*i*, 39 |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *REFERENCES:* | 1.5.45 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:19 PM | | *DATE MODIFIED:* | 10/4/2014 3:19 AM | |

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| 27. Write the quotient in standard form.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | ​ | |  | b. | ​ | |  | c. | ​–2*i* | |  | d. | ​ | |  | e. | ​2*i* |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *REFERENCES:* | 1.5.49 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:19 PM | | *DATE MODIFIED:* | 10/4/2014 3:21 AM | |

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| 28. Write the quotient in standard form.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | ​​4*i* | |  | b. |  | |  | c. | ​ | |  | d. | ​​–4*i* | |  | e. | ​ |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *REFERENCES:* | 1.5.50 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:19 PM | | *DATE MODIFIED:* | 10/4/2014 3:26 AM | |

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| 29. Write the quotient in standard form.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | ​ | |  | b. | ​ | |  | c. | ​ | |  | d. | ​ | |  | e. | ​ |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *REFERENCES:* | 1.5.52 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:19 PM | | *DATE MODIFIED:* | 10/4/2014 3:30 AM | |

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| 30. Write the quotient in standard form.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | – *i* | |  | b. | + *i* | |  | c. | + *i* | |  | d. | + *i* | |  | e. | + *i* |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *REFERENCES:* | 1.5.53 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:19 PM | | *DATE MODIFIED:* | 10/4/2014 3:34 AM | |

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| 31. Write the quotient in standard form.  ​  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | ​ | |  | b. | ​ | |  | c. | ​ | |  | d. | ​ | |  | e. | ​ |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *REFERENCES:* | 1.5.55 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:19 PM | | *DATE MODIFIED:* | 10/4/2014 3:36 AM | |

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| 32. Write the quotient in standard form.  ​  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | 3 – *i* | |  | b. | 3 – 3*i* | |  | c. | 3 *i* | |  | d. | 3*i* – | |  | e. | 3*i* + |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *REFERENCES:* | 1.5.56 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:19 PM | | *DATE MODIFIED:* | 10/4/2014 3:44 AM | |

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| 33. Perform the operation and write the result in standard form.  ​  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | + *i* | |  | b. | – *i* | |  | c. | + *i* | |  | d. | *i* | |  | e. | – *i* |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *REFERENCES:* | 1.5.59 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:19 PM | | *DATE MODIFIED:* | 10/4/2014 3:54 AM | |

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| 34. Write the complex number in standard form.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | ​– | |  | b. |  | |  | c. |  | |  | d. | – | |  | e. |  |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *REFERENCES:* | 1.5.63 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:19 PM | | *DATE MODIFIED:* | 10/4/2014 3:56 AM | |

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| 35. Write the complex number in standard form.  ​  ​  ​   |  |  |  | | --- | --- | --- | |  | a. |  | |  | b. |  | |  | c. |  | |  | d. |  | |  | e. |  |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *REFERENCES:* | 1.5.64 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:19 PM | | *DATE MODIFIED:* | 5/14/2015 10:49 AM | |

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| 36. Write the complex number in standard form.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. |  | |  | b. | – | |  | c. | ​ | |  | d. |  | |  | e. | ​ |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *REFERENCES:* | 1.5.65 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:19 PM | | *DATE MODIFIED:* | 10/4/2014 3:59 AM | |

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| 37. Write the complex number in standard form.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | (24 – ) – (6 – 4)*i* | |  | b. | (24 + ) + (6 – 4)*i* | |  | c. | (24 – ) + (6 – 4)*i* | |  | d. | (24 + ) – (6 – 4)*i* | |  | e. | (24 +) + (6 + 4)*i* |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *REFERENCES:* | 1.5.67 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:19 PM | | *DATE MODIFIED:* | 10/4/2014 4:31 AM | |

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| 38. Write the complex number in standard form.   |  |  |  | | --- | --- | --- | |  | a. |  | |  | b. |  | |  | c. |  | |  | d. |  | |  | e. |  |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *REFERENCES:* | 1.5.68 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:19 PM | | *DATE MODIFIED:* | 6/10/2014 4:19 PM | |

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| 39. Solve the equation and write complex solutions in standard form.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | ​ | |  | b. | ​ | |  | c. | ​ | |  | d. | ​ | |  | e. | ​ |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *REFERENCES:* | 1.5.69 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:19 PM | | *DATE MODIFIED:* | 10/4/2014 5:12 AM | |

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| 40. Solve the equation and write complex solutions in standard form.  ​  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | ​ | |  | b. | ​ | |  | c. | ​ | |  | d. | ​ | |  | e. | ​ |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *REFERENCES:* | 1.5.70 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:19 PM | | *DATE MODIFIED:* | 10/4/2014 5:17 AM | |

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| 41. Simplify the complex number and write it in standard form.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | ​ | |  | b. | ​ | |  | c. | ​ | |  | d. | ​ | |  | e. | ​ |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *REFERENCES:* | 1.5.79 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:19 PM | | *DATE MODIFIED:* | 10/6/2014 6:31 AM | |

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| 42. Simplify the complex number and write it in standard form.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | ​ | |  | b. | ​ | |  | c. | ​ | |  | d. | ​ | |  | e. | ​ |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *REFERENCES:* | 1.5.80 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:19 PM | | *DATE MODIFIED:* | 10/6/2014 6:35 AM | |

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| 43. Simplify the complex number and write it in standard form.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | ​ | |  | b. | ​ | |  | c. | ​ | |  | d. | ​ | |  | e. | ​ |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *REFERENCES:* | 1.5.81 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:19 PM | | *DATE MODIFIED:* | 10/6/2014 6:39 AM | |

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| 44. Simplify the complex number and write it in standard form.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | 185,193*i* | |  | b. | –57*i* | |  | c. | –*i* | |  | d. | *i* | |  | e. | –185,193*i* |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *REFERENCES:* | 1.5.83 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:19 PM | | *DATE MODIFIED:* | 10/6/2014 6:44 AM | |

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| 45. Simplify the complex number and write it in standard form.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | ​14*i*3 | |  | b. | ​​–14*i*3 | |  | c. | ​14 | |  | d. | ​​​–14*i* | |  | e. | ​14*i* |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *REFERENCES:* | 1.5.85 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:19 PM | | *DATE MODIFIED:* | 10/6/2014 6:49 AM | |

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| 46. Simplify the complex number and write it in standard form.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | ​ | |  | b. | ​ | |  | c. | ​ | |  | d. | ​ | |  | e. | ​8*i* |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *REFERENCES:* | 1.5.86 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:19 PM | | *DATE MODIFIED:* | 10/6/2014 6:52 AM | |

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| 47. Simplify the complex number and write it in standard form.  ​  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | ​16 | |  | b. | ​–16 | |  | c. | ​16*i* | |  | d. | ​​–16*i* | |  | e. | ​2*i* |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *REFERENCES:* | 1.5.87 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:19 PM | | *DATE MODIFIED:* | 10/6/2014 6:58 AM | |

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| 48. Simplify the complex number and write it in standard form.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | –1 | |  | b. | ​–*i* | |  | c. | ​1 | |  | d. | ​*i* | |  | e. | 5 |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *REFERENCES:* | 1.5.88 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:19 PM | | *DATE MODIFIED:* | 10/6/2014 7:05 AM | |

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| 49. Raise the complex number to the fourth power.  ​  ​4*i*  ​   |  |  |  | | --- | --- | --- | |  | a. | ​256 | |  | b. | –64 | |  | c. | 64 | |  | d. | 16 | |  | e. | –256 |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *REFERENCES:* | 1.5.91ac | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:19 PM | | *DATE MODIFIED:* | 10/6/2014 7:06 AM | |

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| 50. Describe the error.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | ​ | |  | b. | ​ | |  | c. | ​ | |  | d. | ​ | |  | e. | ​ |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *REFERENCES:* | 1.5.99 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:19 PM | | *DATE MODIFIED:* | 10/6/2014 7:10 AM | |

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| 51. Do the operation and express the answer in *a* + *bi* form.  ​  (5 – 5*i*) + (8 + 3*i*)  ​   |  |  |  | | --- | --- | --- | |  | a. | 2 – 13*i* | |  | b. | – 13 + 2*i* | |  | c. | 13 + 2*i* | |  | d. | – 13 – 2*i* | |  | e. | 13 – 2*i* |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:19 PM | | *DATE MODIFIED:* | 10/6/2014 7:12 AM | |

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| 52. Do the operation and express the answer in *a* + *bi* form.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | – 8 + 14*i* | |  | b. | 8 + 7*i* | |  | c. | – 8 + 7*i* | |  | d. | – 8 – 7*i* | |  | e. | 8 – 7*i* |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:19 PM | | *DATE MODIFIED:* | 10/6/2014 7:16 AM | |

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| 53. Do the operation and express the answer in *a* + *bi* form.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | 19 – 4*i* | |  | b. | – 38 – 8*i* | |  | c. | 19 + 4*i* | |  | d. | – 38 + 8*i* | |  | e. | – 19 + 4*i* |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:19 PM | | *DATE MODIFIED:* | 10/6/2014 7:18 AM | |

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| 54. Do the operation and express the answer in *a* + *bi* form.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | 28 – 5 *i* | |  | b. | – 28 + 6 *i* | |  | c. | – 5 + 6 *i* | |  | d. | 5 – 6 *i* | |  | e. | 28 + 6 *i* |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:19 PM | | *DATE MODIFIED:* | 10/6/2014 7:20 AM | |

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| 55. Do the operation and express the answer in *a* + *bi* form.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | 19*i* | |  | b. | – 19*i* | |  | c. | – 190*i* | |  | d. | – 19 | |  | e. | 19 |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:19 PM | | *DATE MODIFIED:* | 10/6/2014 7:22 AM | |

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| 56. Simplify the expression.  ​  *i* –14  ​   |  |  |  | | --- | --- | --- | |  | a. | *i* | |  | b. | –3*i* | |  | c. | –*i* | |  | d. | –1 | |  | e. | 1 |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:19 PM | | *DATE MODIFIED:* | 10/6/2014 7:25 AM | |

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| 57. Do the operation and express the answer in *a* + *bi* form.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | –17*i* | |  | b. | –85*i* | |  | c. | –17 | |  | d. | 17*i* | |  | e. | 17 |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:19 PM | | *DATE MODIFIED:* | 10/6/2014 7:28 AM | |

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| 58. Find the values of *x* and *y*.  ​  *x* + 59*i* = *y* – *yi*  ​  *x* = \_\_\_\_\_\_\_\_\_\_  ​  *y* = \_\_\_\_\_\_\_\_\_\_   |  |  | | --- | --- | | *ANSWER:* | –59;  –59 | | *POINTS:* | 1 | | *QUESTION TYPE:* | Subjective Short Answer | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:19 PM | | *DATE MODIFIED:* | 10/6/2014 7:29 AM | |

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| 59. Do the operation and express the answer in *a* + *bi* form. Do not use parentheses in your answer.  ​  (3 – 8*i*) + (10 + 5*i*)   |  |  | | --- | --- | | *ANSWER:* | 13 – 3*i* | | *POINTS:* | 1 | | *QUESTION TYPE:* | Subjective Short Answer | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:19 PM | | *DATE MODIFIED:* | 10/6/2014 7:32 AM | |

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| 60. Do the operation and express the answer in *a* + *bi* form. Use fractions in your answer.  ​   |  |  | | --- | --- | | *ANSWER:* | ​ | | *POINTS:* | 1 | | *QUESTION TYPE:* | Subjective Short Answer | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:19 PM | | *DATE MODIFIED:* | 10/6/2014 7:36 AM | |