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| 1. Evaluate the expression. Round your result to two decimal places.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | –0.66 | |  | b. | 2.34 | |  | c. | 1.34 | |  | d. | 3.34 | |  | e. | 0.34 |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *REFERENCES:* | 6.6.23 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:24 PM | | *DATE MODIFIED:* | 12/15/2014 1:53 AM | |

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| 2. Evaluate the expression. Round your result to two decimal places.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | –1.53 | |  | b. | –0.53 | |  | c. | 2.47 | |  | d. | 0.47 | |  | e. | 1.47 |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *REFERENCES:* | 6.6.24 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:24 PM | | *DATE MODIFIED:* | 11/20/2014 6:11 AM | |

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| 3. Evaluate the expression. Round your result to two decimal places.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | 4.21 | |  | b. | 2.21 | |  | c. | 3.21 | |  | d. | 0.21 | |  | e. | 1.21 |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *REFERENCES:* | 6.6.26 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:24 PM | | *DATE MODIFIED:* | 11/20/2014 6:13 AM | |

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| 4. Evaluate the expression. Round your result to two decimal places.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | 3.54 | |  | b. | 0.54 | |  | c. | 1.54 | |  | d. | 2.54 | |  | e. | –0.46 |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *REFERENCES:* | 6.6.28 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:24 PM | | *DATE MODIFIED:* | 11/20/2014 6:17 AM | |

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| 5. Evaluate the expression. Round your result to two decimal places.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | 2.71 | |  | b. | –0.29 | |  | c. | 1.71 | |  | d. | 0.71 | |  | e. | –1.29 |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *REFERENCES:* | 6.6.29 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:24 PM | | *DATE MODIFIED:* | 11/20/2014 6:22 AM | |

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| 6. Evaluate the expression. Round your result to two decimal places.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | 2.12 | |  | b. | 0.12 | |  | c. | 1.12 | |  | d. | –0.88 | |  | e. | 3.12 |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *REFERENCES:* | 6.6.30 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:24 PM | | *DATE MODIFIED:* | 11/20/2014 6:23 AM | |

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| 7. Evaluate the expression. Round your result to two decimal places.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | 1.87 | |  | b. | –2.13 | |  | c. | –1.13 | |  | d. | 0.87 | |  | e. | –0.13 |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *REFERENCES:* | 6.6.32 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:24 PM | | *DATE MODIFIED:* | 11/20/2014 6:27 AM | |

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| 8. Evaluate the expression. Round your result to two decimal places.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | 2.20 | |  | b. | 0.20 | |  | c. | 3.20 | |  | d. | –0.80 | |  | e. | 1.20 |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *REFERENCES:* | 6.6.34 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:24 PM | | *DATE MODIFIED:* | 11/20/2014 6:29 AM | |

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| 9. Evaluate the expression. Round your result to two decimal places.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | 1.73 | |  | b. | –0.27 | |  | c. | –1.27 | |  | d. | 2.73 | |  | e. | 0.73 |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *REFERENCES:* | 6.6.35 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:24 PM | | *DATE MODIFIED:* | 11/20/2014 6:33 AM | |

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| 10. Evaluate the expression. Round your result to two decimal places.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | 0.30 | |  | b. | 1.30 | |  | c. | 4.30 | |  | d. | 3.30 | |  | e. | 2.30 |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *REFERENCES:* | 6.6.36 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:24 PM | | *DATE MODIFIED:* | 11/20/2014 6:37 AM | |

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| 11. Evaluate the expression. Round your result to two decimal places.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | –3.53 | |  | b. | 0.47 | |  | c. | –0.53 | |  | d. | –1.53 | |  | e. | –2.53 |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *REFERENCES:* | 6.6.38 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:24 PM | | *DATE MODIFIED:* | 11/20/2014 6:41 AM | |

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| 12. Evaluate the expression. Round your result to two decimal places.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | –0.53 | |  | b. | –1.53 | |  | c. | 0.47 | |  | d. | –3.53 | |  | e. | –2.53 |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *REFERENCES:* | 6.6.39 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:24 PM | | *DATE MODIFIED:* | 11/21/2014 12:20 AM | |

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| 13. Use an inverse trigonometric function to write *θ* as a function of *x*.  ​  ​  *a* = *x*  *b* = 6  ​   |  |  |  | | --- | --- | --- | |  | a. |  | |  | b. |  | |  | c. |  | |  | d. |  | |  | e. |  |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *REFERENCES:* | 6.6.43 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:24 PM | | *DATE MODIFIED:* | 12/15/2014 4:53 AM | |

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| 14. Use an inverse trigonometric function to write *θ* as a function of *x*.  ​    ​  *a* = *x*  *b* = 10  ​   |  |  |  | | --- | --- | --- | |  | a. |  | |  | b. |  | |  | c. |  | |  | d. |  | |  | e. |  |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *REFERENCES:* | 6.6.44 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:24 PM | | *DATE MODIFIED:* | 12/15/2014 5:42 AM | |

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| 15. Use an inverse trigonometric function to write *θ* as a function of *x*.  ​  ​  *a* = *x* + 6  *b* = 2  ​   |  |  |  | | --- | --- | --- | |  | a. |  | |  | b. |  | |  | c. |  | |  | d. |  | |  | e. |  |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *REFERENCES:* | 6.6.45 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:24 PM | | *DATE MODIFIED:* | 12/15/2014 5:59 AM | |

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| 16. Use an inverse trigonometric function to write *θ* as a function of *x*.  ​  ​  *a* = *x* + 5  *b* = 10  ​   |  |  |  | | --- | --- | --- | |  | a. |  | |  | b. |  | |  | c. |  | |  | d. |  | |  | e. |  |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *REFERENCES:* | 6.6.46 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:24 PM | | *DATE MODIFIED:* | 12/16/2014 12:38 AM | |

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| 17. Use an inverse trigonometric function to write *θ* as a function of *x*.  ​  ​  *a* = 5*x*  *b* = *x* + 9  ​   |  |  |  | | --- | --- | --- | |  | a. |  | |  | b. |  | |  | c. |  | |  | d. |  | |  | e. |  |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *REFERENCES:* | 6.6.47 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:24 PM | | *DATE MODIFIED:* | 12/16/2014 1:05 AM | |

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| 18. Use an inverse trigonometric function to write *θ* as a function of *x*.​  ​  ​   |  |  |  | | --- | --- | --- | |  | a. |  | |  | b. |  | |  | c. |  | |  | d. |  | |  | e. |  |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *REFERENCES:* | 6.6.48 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:24 PM | | *DATE MODIFIED:* | 12/16/2014 1:20 AM | |

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| 19. Use the properties of inverse trigonometric functions to evaluate the expression.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. |  | |  | b. |  | |  | c. |  | |  | d. |  | |  | e. | 40 |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *REFERENCES:* | 6.6.50 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:24 PM | | *DATE MODIFIED:* | 11/21/2014 2:14 AM | |

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| 20. Use the properties of inverse trigonometric functions to evaluate the expression.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. |  | |  | b. |  | |  | c. | 0.4 | |  | d. |  | |  | e. |  |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *REFERENCES:* | 6.6.52 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:24 PM | | *DATE MODIFIED:* | 11/21/2014 2:19 AM | |

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| 21. Use the properties of inverse trigonometric functions to evaluate the expression.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | 1 | |  | b. | –1 | |  | c. |  | |  | d. | 0 | |  | e. |  |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *REFERENCES:* | 6.6.53 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:24 PM | | *DATE MODIFIED:* | 11/21/2014 2:24 AM | |

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| 22. Find an algebraic expression that is equivalent to the expression..  ​  ​   |  |  |  | | --- | --- | --- | |  | a. |  | |  | b. |  | |  | c. |  | |  | d. |  | |  | e. |  |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *REFERENCES:* | 6.6.69 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:24 PM | | *DATE MODIFIED:* | 11/21/2014 2:32 AM | |

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| 23. Find an algebraic expression that is equivalent to the expression.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. |  | |  | b. |  | |  | c. |  | |  | d. |  | |  | e. |  |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *REFERENCES:* | 6.6.70 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:24 PM | | *DATE MODIFIED:* | 11/21/2014 3:43 AM | |

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| 24. Find an algebraic expression that is equivalent to the expression..  ​  ​   |  |  |  | | --- | --- | --- | |  | a. |  | |  | b. |  | |  | c. |  | |  | d. |  | |  | e. |  |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *REFERENCES:* | 6.6.73 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:24 PM | | *DATE MODIFIED:* | 11/21/2014 3:51 AM | |

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| 25. A boat is pulled in by means of a winch located on a dock  feet above the deck of the boat (see figure). Let *θ* be the angle of elevation from the boat to the winch and let *s* be the length of the rope from the winch to the boat. Write *θ* as a function of *s*.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. |  | |  | b. |  | |  | c. |  | |  | d. |  | |  | e. |  |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *REFERENCES:* | 6.6.105a | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:24 PM | | *DATE MODIFIED:* | 11/21/2014 4:12 AM | |

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| 26. A television camera at ground level is filming the lift-off of a space shuttle at a point  meters from the launch pad (see figure). Let *θ* be the angle of elevation to the shuttle and let *s* be the height of the shuttle. Write *θ* as a function of *s*.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. |  | |  | b. |  | |  | c. |  | |  | d. |  | |  | e. |  |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *REFERENCES:* | 6.6.106a | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:24 PM | | *DATE MODIFIED:* | 11/21/2014 4:20 AM | |

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| 27. An airplane flies at an altitude of  miles toward a point directly over an observer. Consider *θ* and *x* as shown in the figure. Write *θ* as a function of *x*.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. |  | |  | b. |  | |  | c. |  | |  | d. |  | |  | e. |  |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *REFERENCES:* | 6.6.110a | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:24 PM | | *DATE MODIFIED:* | 11/21/2014 4:33 AM | |

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| 28. A security car with its spotlight on is parked meters from a warehouse. Consider *θ* and *x* as shown in the figure. Write *θ* as a function of *x.*  ​  ​   |  |  |  | | --- | --- | --- | |  | a. |  | |  | b. |  | |  | c. |  | |  | d. |  | |  | e. |  |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *REFERENCES:* | 6.6.111a | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:24 PM | | *DATE MODIFIED:* | 11/24/2014 11:15 PM | |

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| 29. Find the value of the expression. Round your result to two decimal places.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | –1.25**​** | |  | b. | 1.25 | |  | c. | 1.89 | |  | d. | 3.14 | |  | e. | –3.14  ​ |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *REFERENCES:* | 6.6.127 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:24 PM | | *DATE MODIFIED:* | 11/24/2014 11:25 PM | |

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| 30. Find the value of the expression. Round your result to two decimal places.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | 0.28 | |  | b. | 1.28 | |  | c. | 1.29 | |  | d. | –1.29 | |  | e. | –0.28 |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *REFERENCES:* | 6.6.131 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:24 PM | | *DATE MODIFIED:* | 11/24/2014 11:39 PM | |

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| 31. Find the value of the expression. Round your result to two decimal places.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | –1.32 | |  | b. | 1.83 | |  | c. | –0.26 | |  | d. | –1.26 | |  | e. | 0.74 |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *REFERENCES:* | 6.6.133 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:24 PM | | *DATE MODIFIED:* | 11/25/2014 12:22 AM | |

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| 32. Find the value of the expression. Round your result to two decimal places.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | 1.61 | |  | b. | 1.53 | |  | c. | 0.04 | |  | d. | 0.96 | |  | e. | –0.04 |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *REFERENCES:* | 6.6.134 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:24 PM | | *DATE MODIFIED:* | 11/25/2014 12:36 AM | |

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| 33. Evaluate without using a calculator.   |  |  |  | | --- | --- | --- | |  | a. |  | |  | b. |  | |  | c. |  | |  | d. |  | |  | e. |  |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *REFERENCES:* | 6.6.7 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:24 PM | | *DATE MODIFIED:* | 11/25/2014 12:45 AM | |

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| 34. Evaluate without using a calculator.   |  |  |  | | --- | --- | --- | |  | a. |  | |  | b. |  | |  | c. |  | |  | d. |  | |  | e. |  |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *REFERENCES:* | 6.6.11 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:24 PM | | *DATE MODIFIED:* | 11/25/2014 1:22 AM | |

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| 35. Use a calculator to evaluate . Round your answer to two decimal places.   |  |  |  | | --- | --- | --- | |  | a. | 1.25 | |  | b. | 0.58 | |  | c. | 0.32 | |  | d. | 1.40 | |  | e. | 0.76 |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *REFERENCES:* | 6.6.23 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:24 PM | | *DATE MODIFIED:* | 11/25/2014 1:25 AM | |

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| 36. Use a calculator to evaluate . Round your answer to two decimal places.   |  |  |  | | --- | --- | --- | |  | a. | 0.68 | |  | b. |  | |  | c. | 0.72 | |  | d. |  | |  | e. | 2.51 |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *REFERENCES:* | 6.6.37 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:24 PM | | *DATE MODIFIED:* | 11/25/2014 1:29 AM | |

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| 37. Use an inverse function to write *θ* as a function of *x*.   |  |  |  | | --- | --- | --- | |  | a. |  | |  | b. |  | |  | c. |  | |  | d. |  | |  | e. |  |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *REFERENCES:* | 6.6.43 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:24 PM | | *DATE MODIFIED:* | 11/25/2014 2:38 AM | |

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| 38. Use an inverse function to write *θ* as a function of *x*.     |  |  |  | | --- | --- | --- | |  | a. | ​ | |  | b. |  | |  | c. |  | |  | d. |  | |  | e. |  |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *REFERENCES:* | 6.6.44 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:24 PM | | *DATE MODIFIED:* | 11/25/2014 7:40 AM | |

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| 39. Use the properties of inverse trigonometric functions to evaluate .   |  |  |  | | --- | --- | --- | |  | a. |  | |  | b. |  | |  | c. |  | |  | d. |  | |  | e. |  |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *REFERENCES:* | 6.6.50 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:24 PM | | *DATE MODIFIED:* | 11/25/2014 7:52 AM | |

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| 40. Use the properties of inverse trigonometric functions to evaluate .   |  |  |  | | --- | --- | --- | |  | a. |  | |  | b. |  | |  | c. |  | |  | d. |  | |  | e. |  |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *REFERENCES:* | 6.6.54 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:24 PM | | *DATE MODIFIED:* | 11/25/2014 10:56 PM | |

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| 41. Find the exact value of  .   |  |  |  | | --- | --- | --- | |  | a. |  | |  | b. |  | |  | c. |  | |  | d. |  | |  | e. |  |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *REFERENCES:* | 6.6.60 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:24 PM | | *DATE MODIFIED:* | 11/25/2014 11:33 PM | |

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| 42. Find the exact value of .   |  |  |  | | --- | --- | --- | |  | a. |  | |  | b. |  | |  | c. |  | |  | d. |  | |  | e. |  |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *REFERENCES:* | 6.6.65 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:24 PM | | *DATE MODIFIED:* | 11/25/2014 11:50 PM | |

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| 43. Write an algebraic expression that is equivalent to .   |  |  |  | | --- | --- | --- | |  | a. |  | |  | b. |  | |  | c. |  | |  | d. |  | |  | e. |  |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *REFERENCES:* | 6.6.74 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:24 PM | | *DATE MODIFIED:* | 11/26/2014 12:02 AM | |

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| 44. Write an algebraic expression that is equivalent to .   |  |  |  | | --- | --- | --- | |  | a. |  | |  | b. |  | |  | c. |  | |  | d. |  | |  | e. |  |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *REFERENCES:* | 6.6.71 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:24 PM | | *DATE MODIFIED:* | 11/26/2014 12:08 AM | |

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| 45. Which of the following can be inserted to make the statement true?   |  |  |  | | --- | --- | --- | |  | a. |  | |  | b. |  | |  | c. |  | |  | d. |  | |  | e. | *x* |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *REFERENCES:* | 6.6.80 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:24 PM | | *DATE MODIFIED:* | 11/26/2014 12:14 AM | |

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| 46. Which of the following functions is represented by the graph below?   |  |  |  | | --- | --- | --- | |  | a. | 2arccos *x* | |  | b. | arcsin 2*x* | |  | c. | arccos (*x* + 1) | |  | d. | 2arcsin | |  | e. | arccos |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *REFERENCES:* | 6.6.86 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:24 PM | | *DATE MODIFIED:* | 11/26/2014 3:52 AM | |

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| 47. Which of the following functions is represented by the graph below?   |  |  |  | | --- | --- | --- | |  | a. |  | |  | b. |  | |  | c. |  | |  | d. |  | |  | e. |  |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *REFERENCES:* | 6.6.88 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:24 PM | | *DATE MODIFIED:* | 12/15/2014 12:14 AM | |

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| 48. Use a graphing utility to graph the function below.  ​  ​   |  |  |  |  | | --- | --- | --- | --- | |  | *π* |  |  | |  |  |  |  | |  | -*π* |  |  |  |  |  |  |  | | --- | --- | --- | --- | |  | *π* |  |  | |  |  |  |  | |  | -*π* |  |  |  |  |  |  | | --- | --- | --- | |  | a. | *π​*                                      -*π​* | |  | b. | *π​*                                      -*π​* | |  | c. | ​                                   *π​*                                      -*π​* | |  | d. | *π​*                                      -*π​* | |  | e. | *π​*                                      -*π​* |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *REFERENCES:* | 6.6.94 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:24 PM | | *DATE MODIFIED:* | 12/24/2014 3:27 AM | |

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| 49. Use a graphing utility to graph the function below.     |  |  |  | | --- | --- | --- | |  | a. |  | |  | b. |  | |  | c. |  | |  | d. |  | |  | e. |  |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *REFERENCES:* | 6.6.95 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:24 PM | | *DATE MODIFIED:* | 12/29/2014 12:51 AM | |

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| 50. A granular substance such as sand naturally settles into a cone-shaped pile when poured from a small aperture. Its height depends on the humidity and adhesion between granules. The angle of elevation of a pile, *θ*, is called the *angle of repose*. If the height of a pile of sand is 14 feet and its diameter is approximately 47 feet, determine the angle of repose. Round your answer to the nearest degree.     |  |  |  | | --- | --- | --- | |  | a. |  | |  | b. |  | |  | c. |  | |  | d. |  | |  | e. |  |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *REFERENCES:* | 6.6.108a | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:24 PM | | *DATE MODIFIED:* | 12/15/2014 3:19 AM | |