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| 1. Select an inequality that represents the interval [0, 6).  ​   |  |  |  | | --- | --- | --- | |  | a. | 0 ≤ *x* < 6 | |  | b. | 0 ≤ *x* ≤ 6 | |  | c. | 0 < *x* < 6 | |  | d. | ​0 < *x* ≤ 6 | |  | e. | -6 ≤ *x* < 0 |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *REFERENCES:* | 1.7.7 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:16 PM | | *DATE MODIFIED:* | 9/22/2014 4:45 AM | |

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| 2. Select an inequality that represents the interval (-8, 6).  ​   |  |  |  | | --- | --- | --- | |  | a. | ​-8 ≤ *x* < 6 | |  | b. | ​-8 ≤ *x* ≤ 6 | |  | c. | ​-8 < *x* ≤ 6 | |  | d. | ​8 < *x* < 6 | |  | e. | ​-8 < *x* < 6 |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *REFERENCES:* | 1.7.8 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:16 PM | | *DATE MODIFIED:* | 9/22/2014 8:59 AM | |

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| 3. Select an inequality that represents the interval [-3, 2].  ​   |  |  |  | | --- | --- | --- | |  | a. | -3 < *x* < 2 | |  | b. | ​-3 ≤ *x* < 2 | |  | c. | ​-3 < *x* ≤ 2 | |  | d. | ​3 ≤ *x* ≤ 2 | |  | e. | ​-3 ≤ *x ≤* 2 |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *REFERENCES:* | 1.7.9 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:16 PM | | *DATE MODIFIED:* | 9/22/2014 5:02 AM | |

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| 4. Select an inequality that represents the interval [-4, ∞).  ​   |  |  |  | | --- | --- | --- | |  | a. | *x* ≤ -4 | |  | b. | *x* < -4 | |  | c. | *x* > -4 | |  | d. | *x* ≥ -4 | |  | e. | *x* ≥ 4 |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *REFERENCES:* | 1.7.12 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:16 PM | | *DATE MODIFIED:* | 9/22/2014 5:04 AM | |

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| 5. Determine whether *x* = 9 is in the solution set of the inequality 9*x* - 10 > 0.  ​   |  |  |  | | --- | --- | --- | |  | a. | Yes | |  | b. | No |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *REFERENCES:* | 1.7.23 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:16 PM | | *DATE MODIFIED:* | 5/21/2021 6:19 AM | |

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| 6. Determine whether *x* = 7 is in the solution set of the inequality .  ​   |  |  |  | | --- | --- | --- | |  | a. | Yes | |  | b. | No |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *REFERENCES:* | 1.7.25 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:16 PM | | *DATE MODIFIED:* | 5/21/2021 6:20 AM | |

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| 7. Determine whether *x* = 2 is in the solution set of the inequality |*x* - 12| ≥ 1.  ​   |  |  |  | | --- | --- | --- | |  | a. | No | |  | b. | Yes |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *REFERENCES:* | 1.7.27 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:16 PM | | *DATE MODIFIED:* | 5/21/2021 6:21 AM | |

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| 8. Solve the inequality.  ​  10*x* < -90  ​   |  |  |  | | --- | --- | --- | |  | a. | *x* > -9 | |  | b. | *x* < 9 | |  | c. | *x* > 9 | |  | d. | *x* < -9 | |  | e. | No solution |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *REFERENCES:* | 1.7.30 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:16 PM | | *DATE MODIFIED:* | 9/22/2014 5:11 AM | |

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| 9. Solve the inequality.  ​  *x* + 4 ≤ 16  ​   |  |  |  | | --- | --- | --- | |  | a. | *x* ≥ -12 | |  | b. | *x* ≤ -12 | |  | c. | *x* ≥ 12 | |  | d. | *x* ≤ 12 | |  | e. | *x* ≥ 20 |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *REFERENCES:* | 1.7.34 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:16 PM | | *DATE MODIFIED:* | 9/22/2014 5:14 AM | |

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| 10. Solve the inequality.  ​  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | *x* ≤ 2 | |  | b. | *x* ≤ -2 | |  | c. | *x* ≥ -2 | |  | d. | *x* ≥ 2 | |  | e. | No solution |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *REFERENCES:* | 1.7.41 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:16 PM | | *DATE MODIFIED:* | 9/22/2014 5:18 AM | |

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| 11. Solve the inequality.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. |  | |  | b. | *x* < 14 | |  | c. | *x* > 14 | |  | d. |  | |  | e. |  |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *REFERENCES:* | 1.7.44 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:16 PM | | *DATE MODIFIED:* | 5/21/2021 6:27 AM | |

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| 12. Solve the inequality.  ​  13 - 1.3*x* < -5.2  ​   |  |  |  | | --- | --- | --- | |  | a. | *x* > -14 | |  | b. | *x* > 14 | |  | c. | *x* < 14 | |  | d. | *x* < -14 | |  | e. | No solution |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *REFERENCES:* | 1.7.46 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:16 PM | | *DATE MODIFIED:* | 9/22/2014 5:38 AM | |

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| 13. Solve the inequality.  ​  -12 ≤ -(3*x* + 3) < 24  ​   |  |  |  | | --- | --- | --- | |  | a. | -9 ≤ *x* ≤ 3 | |  | b. | -9 < *x* < 3 | |  | c. | 3 ≤ *x* < 9 | |  | d. | -9 < *x* ≤ 3 | |  | e. | -9 ≤ *x* < 3 |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *REFERENCES:* | 1.7.48 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:16 PM | | *DATE MODIFIED:* | 9/22/2014 5:55 AM | |

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| 14. Solve the inequality.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | -3 ≤ *x* < 15 | |  | b. | 3 ≤ *x* <3 | |  | c. | -15 ≤ *x* < -3 | |  | d. | -3 < *x* ≤ 15 | |  | e. | -15 ≤ *x* < 3 |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *REFERENCES:* | 1.7.52 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:16 PM | | *DATE MODIFIED:* | 5/21/2021 6:37 AM | |

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| 15. Solve the inequality.  ​  1.8 ≤ 0.4*x* - 1 ≤ 3.4  ​   |  |  |  | | --- | --- | --- | |  | a. | 7 ≤ *x* ≤ 11 | |  | b. | -11 ≤ *x* ≤ -7 | |  | c. | 7 ≤ *x* < 11 | |  | d. | -7 ≤ *x* ≤ 11 | |  | e. | 7 < *x* ≤ 11 |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *REFERENCES:* | 1.7.55 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:17 PM | | *DATE MODIFIED:* | 9/22/2014 6:04 AM | |

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| 16. Solve the inequality.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | -8 < *x* < -12 | |  | b. | -8 < *x* < 12 | |  | c. | -12 < *x* < -8 | |  | d. | 8 < *x* < 12 | |  | e. | No solution |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *REFERENCES:* | 1.7.56 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:17 PM | | *DATE MODIFIED:* | 9/22/2014 6:08 AM | |

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| 17. Solve the inequality.  ​  |*x*| < 2  ​   |  |  |  | | --- | --- | --- | |  | a. | *x* < 2 | |  | b. | -2 ≤ *x* < 2 | |  | c. | -2 ≤ *x* ≤ 2 | |  | d. | -2 < *x* < 2 | |  | e. | -2 < *x* ≤ 2 |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *REFERENCES:* | 1.5.57 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:17 PM | | *DATE MODIFIED:* | 5/21/2021 6:38 AM | |

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| 18. Solve the inequality.  ​  |*x*| ≥ 11  ​   |  |  |  | | --- | --- | --- | |  | a. | -11 ≤ *x* ≤ 11 | |  | b. | *x* ≥ 11 | |  | c. | *x* ≤ -11, *x* ≥ 11 | |  | d. | -11 < *x* ≤ 11 | |  | e. | *x* < - 11, *x* > 11 |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *REFERENCES:* | 1.7.58 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:17 PM | | *DATE MODIFIED:* | 9/22/2014 6:16 AM | |

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| 19. Solve the inequality.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | -18 < *x* ≤ 18 | |  | b. | *x* ≥ 18 | |  | c. | *x* < -18, *x* > 18 | |  | d. | *x* ≤ -18, *x* ≥ 18 | |  | e. | -18 ≤ *x* ≤ 18 |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *REFERENCES:* | 1.7.60 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:17 PM | | *DATE MODIFIED:* | 9/22/2014 6:27 AM | |

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| 20. Solve the inequality.  ​  |*x* - 7| < -1  ​   |  |  |  | | --- | --- | --- | |  | a. | *x* < -8, *x* > 6 | |  | b. | -8 < *x* < 8 | |  | c. | -8 < *x* < 6 | |  | d. | -6 < *x* < 6 | |  | e. | No solution |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *REFERENCES:* | 1.7.61 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:17 PM | | *DATE MODIFIED:* | 9/22/2014 6:30 AM | |

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| 21. Solve the inequality.  ​  |*x* - 22| ≤ 6  ​   |  |  |  | | --- | --- | --- | |  | a. | 16 ≤ *x* ≤ 28 | |  | b. | -28 ≤ *x* ≤ 16 | |  | c. | -16 ≤ *x* ≤ 28 | |  | d. | -28 ≤ *x* ≤ -16 | |  | e. | No solution |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *REFERENCES:* | 1.7.63 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:17 PM | | *DATE MODIFIED:* | 9/22/2014 6:37 AM | |

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| 22. Solve the inequality.  ​  |*x* - 8| ≥ 0  ​   |  |  |  | | --- | --- | --- | |  | a. | *x* ≤ 8 | |  | b. | *x* < 8 | |  | c. | *x* > 8 | |  | d. | *x* ≥ 8 | |  | e. | All real numbers *x* |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *REFERENCES:* | 1.7.64 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:17 PM | | *DATE MODIFIED:* | 9/22/2014 6:41 AM | |

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| 23. Solve the inequality.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | *x* ≤ -11, *x* ≥ 17 | |  | b. | -17 ≤ *x* ≤ 11 | |  | c. | -17 ≤ *x* ≤ -11 | |  | d. | *x* ≤ -17, *x* ≥ 11 | |  | e. | -11 ≤ *x* ≤ 17 |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *REFERENCES:* | 1.7.67 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:17 PM | | *DATE MODIFIED:* | 9/22/2014 6:51 AM | |

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| 24. Solve the inequality.  ​  |*x* + 16| + 3 > 19  ​   |  |  |  | | --- | --- | --- | |  | a. | 0 < *x* < 16 | |  | b. | *x* > -32 | |  | c. | *x* < 0, *x* > 16 | |  | d. | *x* < -32, *x* > 0 | |  | e. | -32 < *x* < 0 |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *REFERENCES:* | 1.7.70 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:17 PM | | *DATE MODIFIED:* | 9/22/2014 6:54 AM | |

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| 25. Solve the inequality.  ​  5|*x* + 10| ≥ 8  ​   |  |  |  | | --- | --- | --- | |  | a. | *x* ≤ - , *x* ≥ - | |  | b. | *x* ≥ - , *x* ≤ - | |  | c. | *x* < - , *x* ≥ - | |  | d. | -  ≥ *x* ≥ | |  | e. | *x* ≥ - |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *REFERENCES:* | 1.7.71 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:17 PM | | *DATE MODIFIED:* | 10/23/2014 8:43 AM | |

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| 26. Find the interval(s) on the real number line for which the radicand  is nonnegative.  ​   |  |  |  | | --- | --- | --- | |  | a. | (-∞, 4] | |  | b. | [4, ∞) | |  | c. | (-4, ∞) | |  | d. | (4, ∞) | |  | e. | (-∞, 4) |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *REFERENCES:* | 1.7.89 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:17 PM | | *DATE MODIFIED:* | 9/22/2014 7:07 AM | |

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| 27. Find the interval(s) on the real number line for which the radicand  is nonnegative.  ​   |  |  |  | | --- | --- | --- | |  | a. | (-∞, -9) | |  | b. | (-9, ∞) | |  | c. | (-∞, 9] | |  | d. | (9, ∞) | |  | e. | [-9, ∞) |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *REFERENCES:* | 1.7.91 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:17 PM | | *DATE MODIFIED:* | 9/22/2014 7:10 AM | |

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| 28. Find the interval(s) on the real number line for which the radicand  is nonnegative.  ​   |  |  |  | | --- | --- | --- | |  | a. | (7, ∞) | |  | b. | (-7, ∞) | |  | c. | (-∞, -9) | |  | d. | (-∞, 7] | |  | e. | [-7, ∞) |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *REFERENCES:* | 1.7.92 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:17 PM | | *DATE MODIFIED:* | 9/22/2014 7:12 AM | |

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| 29. Find the interval(s) on the real number line for which the radicand  is nonnegative.  ​   |  |  |  | | --- | --- | --- | |  | a. | ​ | |  | b. |  | |  | c. |  | |  | d. |  | |  | e. |  |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *REFERENCES:* | 1.7.93 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:17 PM | | *DATE MODIFIED:* | 9/22/2014 9:03 AM | |

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| 30. Use absolute value notation to define the interval (or pair of intervals) on the real number line.  ​  All real numbers within 6 units of 11.  ​   |  |  |  | | --- | --- | --- | |  | a. | **|***x* - 11**|** **>** 6 | |  | b. | **|***x* + 11**|** **>** 6 | |  | c. | **|***x* - 11**|** ≥ 6 | |  | d. | **|***x* - 11**|** ≤ 6 | |  | e. | **|***x* - 11**|** **<** 6 |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *REFERENCES:* | 1.7.101 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:17 PM | | *DATE MODIFIED:* | 5/21/2021 6:39 AM | |

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| 31. Use absolute value notation to define the interval (or pair of intervals) on the real number line.  ​  All real numbers at least two units from 8.  ​   |  |  |  | | --- | --- | --- | |  | a. | **|***x* - 8**|** ≥ 2 | |  | b. | **|***x* - 8**|** **>** 2 | |  | c. | **|***x* - 8**|** **<** 2 | |  | d. | **|***x* - 8**|** ≤ 2 | |  | e. | **|***x* + 8**|** ≥ 2 |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *REFERENCES:* | 1.7.102 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:17 PM | | *DATE MODIFIED:* | 5/21/2021 6:39 AM | |

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| 32. Use absolute value notation to define the interval (or pair of intervals) on the real number line.  ​  All real numbers more than six units from -9.  ​   |  |  |  | | --- | --- | --- | |  | a. | |*x* - 9| ≤ 6 | |  | b. | |*x* - 9| > 6 | |  | c. | |*x* + 9| > 6 | |  | d. | |*x* + 9| < 6 | |  | e. | |*x* + 9| ≥ 6 |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *REFERENCES:* | 1.7.103 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:17 PM | | *DATE MODIFIED:* | 5/21/2021 6:39 AM | |

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| 33. Use absolute value notation to define the interval (or pair of intervals) on the real number line.  ​  All real numbers no more than eight units from -5.  ​   |  |  |  | | --- | --- | --- | |  | a. | |*x* + 5| > 8 | |  | b. | |*x* + 5| ≤ 8 | |  | c. | |*x* + 5| ≥ 8 | |  | d. | |*x* - 5| ≤ 8 | |  | e. | |*x* - 5| > 8 |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *REFERENCES:* | 1.7.104 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:17 PM | | *DATE MODIFIED:* | 5/21/2021 6:40 AM | |

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| 34. Use inequality notation to describe the subset of real numbers.  ​  A company expects its earnings per share *E* for the next quarter to be no less than $4.13 and no more than $4.31.  ​   |  |  |  | | --- | --- | --- | |  | a. | 4.13 > *E* > 4.31 | |  | b. | 4.13 ≤ *E* ≤ 4.31 | |  | c. | 4.13 < *E* ≤ 4.31 | |  | d. | 4.13 ≤ *E* < 4.31 | |  | e. | 4.13 < *E* < 4.31 |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *REFERENCES:* | 1.7.105 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:17 PM | | *DATE MODIFIED:* | 9/22/2014 7:58 AM | |

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| 35. Use inequality notation to describe the subset of real numbers.  ​  The net income *I* of a company is expected to be no less than $239 million.  ​   |  |  |  | | --- | --- | --- | |  | a. | *​I* ≥ 239,000,000 | |  | b. | *​I* ≤ 239,000,000 | |  | c. | *​I* < 239,000,000 | |  | d. | ​*I* > 239,000,000 | |  | e. | None of these |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *REFERENCES:* | 1.7.108 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:17 PM | | *DATE MODIFIED:* | 9/22/2014 8:05 AM | |

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| 36. The maximum heart rate of a person in normal health is related to the person’s age by the equation *r* = 240 - *A* where *r* is the maximum heart rate in beats per minute and *A* is the person’s age in years. Some physiologists recommend that during physical activity a sedentary person should strive to increase his or her heart rate to at least 50% of the maximum heart rate, and a highly fit person should strive to increase his or her heart rate to at most 70% of the maximum heart rate. (Source: American Heart Association)  Express as an interval the range of the target heart rate for a 25-year-old.  ​   |  |  |  | | --- | --- | --- | |  | a. | 107.5 < *r* ≤ 150.5 | |  | b. | 107.5 ≤ *r* ≤ 150.5 | |  | c. | 107.5 < *r* < 150.5 | |  | d. | 117.5 ≤ *r* ≤ 160.5 | |  | e. | 107.5 ≤ *r* < 150.5 |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *REFERENCES:* | 1.7.109 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:17 PM | | *DATE MODIFIED:* | 4/10/2021 2:16 AM | |

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| 37. You are considering two job offers. The first job pays $3,400 per month. The second job pays $1,000 per month plus a commission of 2% of your gross sales. Write an inequality yielding the gross sales *x* per month for which the second job will pay the greater monthly wage. Solve the inequality.  ​   |  |  |  | | --- | --- | --- | |  | a. | ​1,000 + 0.02*x* ≥ 3,400; *x* ≥ 120,000 | |  | b. | ​1,000 + 0.02*x* > 3,400; *x* > 120,000 | |  | c. | ​1,000 + 0.02*x* < 3,400; *x* > 120,000 | |  | d. | ​1,000 + 0.02*x* > 3,400; *x* < 120,000 | |  | e. | ​1,000 + 0.02*x* < 3,400; *x* < 120,000 |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *REFERENCES:* | 1.7.112 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:17 PM | | *DATE MODIFIED:* | 9/22/2014 8:24 AM | |

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| 38. In order for an investment of $750 to grow to more than $930 in 2 years, what must the annual interest rate be? Round your answer to two decimal places. [*A* = *P*(1 + *rt*)]  ​   |  |  |  | | --- | --- | --- | |  | a. | *r* > 13.00% | |  | b. | *r* > 16.00% | |  | c. | *r* > 11.00% | |  | d. | *r* > 14.00% | |  | e. | *r* > 12.00% |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *REFERENCES:* | 1.7.114 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:17 PM | | *DATE MODIFIED:* | 9/22/2014 8:31 AM | |

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| 39. The revenue from selling *x* units of a product is *R* = 115.85*x*. The cost of producing *x* units is *C* = 93*x* + 750. To obtain a profit, the revenue must be greater than the cost. For what values of *x* will this product return a profit?  ​   |  |  |  | | --- | --- | --- | |  | a. | *x* ≤ 33 | |  | b. | *x* ≥ 33 | |  | c. | *x* < 33 | |  | d. | *x* < 31 | |  | e. | 32 < *x* < 33 |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *REFERENCES:* | 1.7.115 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:17 PM | | *DATE MODIFIED:* | 4/10/2021 2:18 AM | |

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| 40. A doughnut shop sells a dozen doughnuts for $4.75. Beyond the fixed costs (rent, utilities, and insurance) of $220 per day, it costs $2.5 for enough materials (flour, sugar, and so on) and labor to produce a dozen doughnuts. The daily profit from doughnut sales varies from $60 to $270. Between what levels (in dozens) do the daily sales vary?  (Round your answer to two decimal places.)  ​   |  |  |  | | --- | --- | --- | |  | a. | 124.44 < *x* > 217.78 | |  | b. | ​124.44 < *x* < 217.78 | |  | c. | ​124.44 < *x* ≤ 217.78 | |  | d. | ​124.44 ≤ *x* < 217.78 | |  | e. | ​124.44 ≤ *x* ≤ 217.78 |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *REFERENCES:* | 1.7.117 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:17 PM | | *DATE MODIFIED:* | 9/22/2014 8:41 AM | |

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| 41. A person enrolls in a diet and exercise program that guarantees a loss of at least  pounds per week. The person’s weight at the beginning of the program is 165 pounds. Find the maximum number of weeks before the person attains a goal weight of 130 pounds.     |  |  |  | | --- | --- | --- | |  | a. | 14 wk | |  | b. | 12 wk | |  | c. | 24 wk | |  | d. | 19 wk | |  | e. | 29 wk |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *REFERENCES:* | 1.7.118 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:17 PM | | *DATE MODIFIED:* | 5/21/2021 7:06 AM | |

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| 42. The average salaries *S* (in thousands of dollars) for elementary school teachers in the United States from 1990 through 2005 are approximated by the model  ​    ​  where *t* represents the year, with  *t* = 0 corresponding to 1990.  If this relationship between salary and time continues, when will the average salary exceed $58,000?  (Round the answer to two decimal places.)  ​   |  |  |  | | --- | --- | --- | |  | a. | *t* > 24.86 (2015) | |  | b. | *t* < 28.86 (before 2015) | |  | c. | *t* > 25.86 (2016) | |  | d. | *t* < 26.86 (before 2017) | |  | e. | *t* > 27.86 (2018) |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *REFERENCES:* | 1.7.121 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:17 PM | | *DATE MODIFIED:* | 10/24/2014 4:37 AM | |

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| 43. The numbers of eggs *E* (in billions) produced in the United States from 1990 through 2006 can be modeled by  ​    ​  where *t* represents the year, with *t =* 0 corresponding to 1990.  If this relationship between number of eggs and time continues, when was the annual egg production 70 billion, but no more than 99 billion?  (Round the answer to two decimal places.)  ​   |  |  |  | | --- | --- | --- | |  | a. | 3.32 ≤ *t* ≤ 22.39; Between 1993 and 2012 | |  | b. | 2.32 ≤ *t* ≤ 21.39; Between 1992 and 2011 | |  | c. | 4.32 ≤ *t* ≤ 23.39; Between 1994 and 2013 | |  | d. | 5.32 ≤ *t* ≤ 24.39; Between 1995 and 2014 | |  | e. | 1.32 ≤ *t* ≤ 20.39; Between 1991 and 2010 |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *REFERENCES:* | 1.7.122 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:17 PM | | *DATE MODIFIED:* | 5/21/2021 7:48 AM | |

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| 44. The side of a square is measured as 10.2 inches with a possible error of  inch. Using  these measurements, determine the interval containing the possible areas of the square.  Round your answers to three decimal places.  ​   |  |  |  | | --- | --- | --- | |  | a. |  | |  | b. |  | |  | c. |  | |  | d. |  | |  | e. |  |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *REFERENCES:* | 1.7.123 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:17 PM | | *DATE MODIFIED:* | 4/10/2021 2:28 AM | |

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| 45. You stop at a self-service gas station to buy 15 gallons of 87-octane gasoline at $2.15 a gallon. The gas pump is accurate to within  of a gallon. How much might you be undercharged or overcharged per gallon?  Round your answer to two decimal places.  ​   |  |  |  | | --- | --- | --- | |  | a. | $0.43 | |  | b. | $2.15 | |  | c. | $0.22 | |  | d. | $4.30 | |  | e. | $0.02 |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *REFERENCES:* | 1.7.125 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:17 PM | | *DATE MODIFIED:* | 5/21/2021 7:53 AM | |

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| 46. A time study was conducted to determine the length of time required to perform a particular task in a manufacturing process. The times required by approximately two-thirds of the workers in the study satisfied the inequality  ​  ​  where *t* is time in minutes. Determine the interval on the real number line in which these times lie.  ​   |  |  |  | | --- | --- | --- | |  | a. | 14.2 ≤ *t* < 17.6 | |  | b. | -14.2 < *t* < 17.6 | |  | c. | 14.2 ≤ *t* ≤ 17.6 | |  | d. | -17.6 < *t* < -14.2 | |  | e. | 14.2 < *t* < 17.6 |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *REFERENCES:* | 1.7.127 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:17 PM | | *DATE MODIFIED:* | 10/24/2014 4:54 AM | |

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| 47. The heights of two-thirds of the members of a population satisfy the inequality  ​  ​  where *h* is measured in inches. Determine the interval on the real number line in which these heights lie.  ​   |  |  |  | | --- | --- | --- | |  | a. | 3.9 ≤ *h* ≤ 9.3 | |  | b. | 3.9 < *h* < 9.3 | |  | c. | 3.9 < *h* ≤ 9.3 | |  | d. | 3.9 ≤ *h* < 9.3 | |  | e. | None of these |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *REFERENCES:* | 1.7.128 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:17 PM | | *DATE MODIFIED:* | 4/10/2021 2:36 AM | |

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| 48. An electronic device is to be operated in an environment with relative humidity *h* in the interval defined by . What are the minimum and maximum relative humidity for the operation of this device?  ​   |  |  |  | | --- | --- | --- | |  | a. | 70 and 130 | |  | b. | 80 and 140 | |  | c. | 60 and 120 | |  | d. | 30 and 80 | |  | e. | 50 and 110 |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *REFERENCES:* | 1.7.129 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:17 PM | | *DATE MODIFIED:* | 5/21/2021 7:55 AM | |

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| 49. Michael Kasha of Florida State University used physics and mathematics to design a new classical guitar. The model he used for the frequency of the vibrations on a circular plate was  ​  ,  ​  where *ν* is the frequency (in vibrations per second), *t* is the plate thickness (in millimeters), *d* is the diameter of the plate, *E* is the elasticity of the plate material, and *ρ* is the density of the plate material. For fixed values of *d*, *E* and *ρ* the graph of the equation is a line (see figure).  ​  Estimate the frequency when the plate thickness is 4 millimeters.  ​   |  |  |  | | --- | --- | --- | |  | a. | Around 750 | |  | b. | Around 650 | |  | c. | Around 850 | |  | d. | Around 550 | |  | e. | None of these |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *REFERENCES:* | 1.7.130 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:17 PM | | *DATE MODIFIED:* | 5/24/2021 1:54 AM | |

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| 50. If  -10 ≤ *x*≤ 4, then which of the following is true.  ​   |  |  |  | | --- | --- | --- | |  | a. | 10 ≥ *x* and *x* ≥ 4 | |  | b. | -10 ≥ -*x* and *x* ≥ 4 | |  | c. | 10 ≥ -*x* and -*x* ≥ -4 | |  | d. | -10 ≥ -*x* and -*x* ≥ -4 | |  | e. | 10 ≥ *x* and -*x* ≥ -4 |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *REFERENCES:* | 1.7.132 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:17 PM | | *DATE MODIFIED:* | 4/10/2021 2:46 AM | |

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| 51. Match the inequality –6 ≤ *x* ≤ –1 with its graph.   |  |  |  | | --- | --- | --- | |  | a. | –6                    –1 | |  | b. | –6                     –1 | |  | c. | –1 | |  | d. | –6                     –1 | |  | e. | –6                     –1 |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *DIFFICULTY:* | Easy | | *REFERENCES:* | 1-6 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:17 PM | | *DATE MODIFIED:* | 9/23/2014 2:38 AM | |

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| 52. Match the inequality –7 < *x* < –5 with its graph.   |  |  |  | | --- | --- | --- | |  | a. | –7                    –5 | |  | b. | –7                    –5 | |  | c. | –5 | |  | d. | –7                    –5 | |  | e. | –7                    –5 |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *DIFFICULTY:* | Easy | | *REFERENCES:* | 1-6 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:17 PM | | *DATE MODIFIED:* | 9/23/2014 2:40 AM | |

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| 53. Which of the following is not included in the solution set of the inequality ?   |  |  |  | | --- | --- | --- | |  | a. | *x* = –56 | |  | b. | *x* = –58 | |  | c. | *x* = 37 | |  | d. | *x* = 35 | |  | e. | *x* = 8 |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *DIFFICULTY:* | Medium | | *REFERENCES:* | 7-10 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:17 PM | | *DATE MODIFIED:* | 5/24/2021 2:00 AM | |

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| 54. Which of the following is not included in the solution set of the inequality |9*x+*6| < 7?  ​   |  |  |  | | --- | --- | --- | |  | a. | *x* = 2 | |  | b. | *x* = | |  | c. | *x* = | |  | d. | *x* = | |  | e. | *x* = |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *DIFFICULTY:* | Medium | | *REFERENCES:* | 7-10 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 9/23/2014 4:08 AM | | *DATE MODIFIED:* | 5/24/2021 2:23 AM | |

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| 55. Solve: –8 < -(*x* + 3) ≤ 7   |  |  |  | | --- | --- | --- | |  | a. | –10 ≤ *x* < 5 | |  | b. | –11 < *x* ≤ –10 | |  | c. | –5 > *x* ≥ –10 | |  | d. | –10 > *x* ≥ 11 | |  | e. | no solution |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *DIFFICULTY:* | Medium | | *REFERENCES:* | 11-20 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:17 PM | | *DATE MODIFIED:* | 4/10/2021 2:55 AM | |

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| 56. Solve: 3(*x* - 10) > 3*x* - 27   |  |  |  | | --- | --- | --- | |  | a. | *x* > 3 | |  | b. | –3 < *x*< 10 | |  | c. | *x* ≤ –20 | |  | d. | *x* < –10 | |  | e. | no solution |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *DIFFICULTY:* | Medium | | *REFERENCES:* | 11-20 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:17 PM | | *DATE MODIFIED:* | 4/10/2021 2:56 AM | |

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| 57. Solve: ​|1 + 11*x|+* 4 < 7  ​   |  |  |  | | --- | --- | --- | |  | a. | ​*x* < | |  | b. | ​ < *x* < | |  | c. | ​ < *x* < | |  | d. | ​ < *x* < | |  | e. | ​no solution |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *DIFFICULTY:* | Medium | | *REFERENCES:* | 29-36 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 9/23/2014 4:55 AM | | *DATE MODIFIED:* | 9/24/2014 3:17 AM | |

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| 58. Use absolute value notation to define the interval shown below.   |  |  |  | | --- | --- | --- | |  | | | |  | –9 | 9 |  |  |  |  | | --- | --- | --- | |  | a. | |*x* + 9| < 0 | |  | b. | ​|*x*| > –9 | |  | c. | ​|9 - *x*| > 0 | |  | d. | ​|*x*| < 9 | |  | e. | ​|*x* - 9| > 0 |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *DIFFICULTY:* | Medium | | *REFERENCES:* | 39-46 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:17 PM | | *DATE MODIFIED:* | 9/23/2014 6:33 AM | |

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| 59. Use absolute value notation to define the interval shown below.   |  |  |  | | --- | --- | --- | |  | | | |  | –8 | 0 |  |  |  |  | | --- | --- | --- | |  | a. |  | |  | b. |  | |  | c. |  | |  | d. |  | |  | e. |  |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *DIFFICULTY:* | Medium | | *REFERENCES:* | 39-46 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:17 PM | | *DATE MODIFIED:* | 5/24/2021 2:38 AM | |

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| 60. Solve the inequality  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | ​*x* > 4 | |  | b. | ​*x* < -4 | |  | c. | *​x* > -4 | |  | d. | ​*x* < 4 | |  | e. | None of the above. |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:17 PM | | *DATE MODIFIED:* | 9/23/2014 6:45 AM | |

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| 61. Solve the inequality  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | ​*x* ≤ –7 | |  | b. | *​x* ≥ –56 | |  | c. | *​x* ≤ –56 | |  | d. | *​x* ≥ –7 | |  | e. | None of the above. |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:17 PM | | *DATE MODIFIED:* | 9/23/2014 6:49 AM | |

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| 62. Solve the inequality  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | ​22 < *x* < 32 | |  | b. | ​11 < *x* < 16 | |  | c. | ​ | |  | d. | ​27 < *x* < 32 | |  | e. | ​ |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:17 PM | | *DATE MODIFIED:* | 9/23/2014 6:56 AM | |

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| 63. Sketch the solution to the following inequality on the real number line:  ​  ​   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | a. | ​ | b. | ​ | |  | c. | ​ | d. | ​ | |  | e. | ​ |  |  |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:17 PM | | *DATE MODIFIED:* | 9/23/2014 7:20 AM | |

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| 64. Use absolute value notation to define the interval (or pair of intervals) on the real number line below.   |  |  |  | | --- | --- | --- | |  | a. | *​x* < –4, *x* > 3 | |  | b. | ​–4 < *x* < 3 | |  | c. | *​x* ≤ –4, *x* ≥ 3 | |  | d. | ​–4 ≤ *x* ≤ 3 | |  | e. | None of the above. |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:17 PM | | *DATE MODIFIED:* | 9/23/2014 7:29 AM | |

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| 65.  Solve the inequality  ​  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | ​*x* ≤ –11 | |  | b. | *​x* ≥ 19 | |  | c. | ​–11 ≤ *x* ≤ 19 | |  | d. | ​*x* ≤ 19 | |  | e. | *​x* ≤ –11, x ≥ 19 |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:17 PM | | *DATE MODIFIED:* | 9/23/2014 7:36 AM | |

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| 66. Solve the inequality and graph the solution on the real number line.  ​  ​  ​   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | a. | ​ | b. | ​ | |  | c. | ​ | d. | ​ | |  | e. | ​ |  |  |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:17 PM | | *DATE MODIFIED:* | 9/23/2014 7:50 AM | |