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| 1. Determine which of the following points lies on the graph of the equation.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | (2, 10) | |  | b. | (2, 9) | |  | c. | (2, 8) | |  | d. | (9, 8) | |  | e. | (3, 8) |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *REFERENCES:* | 1.1.7 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:15 PM | | *DATE MODIFIED:* | 7/5/2021 11:58 PM | |

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| 2. Determine which of the following points lies on the graph of the equation.  ​  *y* = |*x* – 2| + 4  ​   |  |  |  | | --- | --- | --- | |  | a. | (5, 7) | |  | b. | (5, 9) | |  | c. | (5, 8) | |  | d. | (8, 7) | |  | e. | (6, 7) |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *REFERENCES:* | 1.1.11 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:15 PM | | *DATE MODIFIED:* | 7/5/2021 11:58 PM | |

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| 3. Write the standard form of the equation of the circle with the given characteristics.  ​  Endpoints of a diameter: (2, 2), (12, 2)  ​   |  |  |  | | --- | --- | --- | |  | a. |  | |  | b. | ​ | |  | c. | ​ | |  | d. | ​ | |  | e. | ​ |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *REFERENCES:* | 1.1.68 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:15 PM | | *DATE MODIFIED:* | 5/8/2015 11:33 AM | |

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| 4. Write the standard form of the equation of the circle with the given characteristics.  ​  Center:(3, 1); Radius: 7  ​   |  |  |  | | --- | --- | --- | |  | a. |  | |  | b. |  | |  | c. |  | |  | d. |  | |  | e. |  |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *REFERENCES:* | 1.1.63 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:15 PM | | *DATE MODIFIED:* | 9/15/2014 9:16 AM | |

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| 5. Find the center and radius of the circle, and sketch its graph.  ​   |  |  |  | | --- | --- | --- | |  | a. | Center (0, 0), Radius 16 | |  | b. | Center (0, 0), Radius 4  ​ | |  | c. | Center (0, 0), Radius 4  ​ | |  | d. | Center (0, 0), Radius 16  ​ | |  | e. | Center (0, 0), Radius 4  ​ |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *REFERENCES:* | 1.1.69 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:15 PM | | *DATE MODIFIED:* | 7/5/2021 11:50 PM | |

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| 6. Find the center and radius of the circle, and sketch its graph.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | Center , Radius  ​ | |  | b. | Center , Radius  ​ | |  | c. | Center , Radius  ​ | |  | d. | Center , Radius  ​ | |  | e. | Center , Radius  ​ |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *REFERENCES:* | 1.1.73 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:15 PM | | *DATE MODIFIED:* | 7/5/2021 11:51 PM | |

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| 7. Identify any intercepts and test for symmetry. Then sketch the graph of the equation.  ​  *y* = *x*2 – 4*x*  ​   |  |  |  | | --- | --- | --- | |  | a. | *x*-intercepts : (0, 0), (4, 0)  *y*-intercept : (0, 0)  No symmetry  ​ | |  | b. | *x*-intercepts : (0, 0), (–4, 0)  *y*-intercept : (0, 1)  No symmetry | |  | c. | *x*-intercepts : (4, 0), (4, 0)  *y*-intercept : (0, 1)  No symmetry  ​ | |  | d. | *x*-intercepts : (0, 0), (4, 0)  *y*-intercept : (0, 1)  No symmetry  ​ | |  | e. | *x*-intercepts : (0, 0), (4, 0)  *y*-intercept : (0, –1)  No symmetry  ​ |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *REFERENCES:* | 1.1.39 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:15 PM | | *DATE MODIFIED:* | 7/5/2021 11:52 PM | |

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| 8. Write the standard form of the equation of the circle with the given characteristics.  ​  Center: (6, 1); Solution point: (5, 9)  ​   |  |  |  | | --- | --- | --- | |  | a. |  | |  | b. |  | |  | c. |  | |  | d. |  | |  | e. |  |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *REFERENCES:* | 1.1.66 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:15 PM | | *DATE MODIFIED:* | 9/15/2014 10:28 AM | |

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| 9. Complete the table. Use the resulting solution points to sketch the graph of the equation.   *y* = –2*x* + 3   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | *x* | –1 | 0 | 1 | 4 |  | | *y* |  |  |  |  |  | | (*x*, *y*) |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  | a. | ​   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | *x* | –1 | 0 | 1 | 4 |  | | *y* | 5 | 3 | 1 | –5 | –6 | | (*x*, *y*) | (–1, 5) | (0, 3) | (1, 1) | (4, –5) | (, 9) |   ​  ​  ​  ​ | |  | b. | ​   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | *x* | –1 | 0 | 1 | 4 |  | | *y* | 5 | 3 | 1 | –5 | –6 | | (*x*, *y*) | (–1, 5) | (0, 1) | (1, 3) | (4, –5) | (, –6) |   ​​  ​  ​  ​ | |  | c. | ​   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | *x* | –1 | 0 | 1 | 4 |  | | *y* | 5 | 3 | 1 | –5 | –6 | | (*x*, *y*) | (5, –1) | (3, 0) | (1, 1) | (4, –5) | (, –6) |   ​  ​  ​ | |  | d. | ​   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | *x* | –1 | 0 | 1 | 4 |  | | *y* | 5 | 3 | 1 | –5 | –6 | | (*x*, *y*) | (–1, 5) | (3, 0) | (1, 1) | (4, –5) | (, –6) |   ​  ​  ​ | |  | e. | ​   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | *x* | –1 | 0 | 1 | 4 |  | | *y* | 5 | 3 | 1 | –5 | –6 | | (*x*, *y*) | (–1, 5) | (0, 3) | (1, 1) | (4, –5) | (, –6) |   ​  ​  ​ |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *REFERENCES:* | 1.1.15 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:15 PM | | *DATE MODIFIED:* | 5/8/2015 11:47 AM | |

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| 10. Graphically estimate the *x*- and *y*-intercepts of the graph.  ​  *y* = |*x* + 3|  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | *x*-intercept: (–3, 0)  *y*-intercept: (0, 3) | |  | b. | *x*-intercept: (0, –3)  *y*-intercept: (3, 0) | |  | c. | *x*-intercept: (0, –3)  *y*-intercept: (0, 3) | |  | d. | *x*-intercept: (3, 0)  *y*-intercept: (3, 0) | |  | e. | *x*-intercept: (0, 3)  *y*-intercept: (3, 0) |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *REFERENCES:* | 1.1.21 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:15 PM | | *DATE MODIFIED:* | 9/15/2014 11:25 AM | |

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| 11. Determine which of the following points lies on the graph of the equation.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | (3, 1) | |  | b. | (2, 3) | |  | c. | (4, 1) | |  | d. | (2, 1) | |  | e. | (2, 2) |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *REFERENCES:* | 1.1.13 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:15 PM | | *DATE MODIFIED:* | 7/5/2021 11:57 PM | |

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| 12. Which of the following graphs is symmetric about the *y*-axis?  ​   |  |  |  | | --- | --- | --- | |  | a. |  | |  | b. |  | |  | c. |  | |  | d. |  | |  | e. |  |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *REFERENCES:* | 1.1.28 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:15 PM | | *DATE MODIFIED:* | 7/5/2021 11:57 PM | |

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| 13. You purchase an all-terrain vehicle (ATV) for $2,000. The depreciated value *y* after *t* years  is given by *y* = 2,000 – 500*t*​, 0 ≤ *t* ≤ 6. Sketch the graph of the equation.  ​   |  |  |  | | --- | --- | --- | |  | a. | ​ | |  | b. | ​  ​ | |  | c. | ​ | |  | d. | ​ | |  | e. | ​ |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *REFERENCES:* | 1.1.76 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:15 PM | | *DATE MODIFIED:* | 9/19/2014 4:40 AM | |

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| 14. The resistance *y* (in ohms) of 1,000 feet of solid copper wire at 68 degrees Fahrenheit can be approximated by the model    where *x* is the diameter of the wire in mils (0.001 inch).  Complete the table.   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | *x* | 15 | 45 | 55 | 70 | 75 | | *y* |  |  |  |  |  |   Round the answer to two decimal places.   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  | a. | ​   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | *x* | 15 | 45 | 55 | 70 | 75 | | *y* | 47.50 | 1.54 | 3.19 | 1.83 | 4.95 |   ​ | |  | b. | ​   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | *x* | 15 | 45 | 55 | 70 | 75 | | *y* | 47.50 | 4.95 | 3.19 | 1.54 | 1.83 |   ​​ | |  | c. | ​   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | *x* | 15 | 45 | 55 | 70 | 75 | | *y* | 47.50 | 4.95 | 1.83 | 3.19 | 1.54 |   ​ | |  | d. | ​   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | *x* | 15 | 45 | 55 | 70 | 75 | | *y* | 47.50 | 3.19 | 4.95 | 1.83 | 1.54 |   ​ | |  | e. | ​   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | *x* | 15 | 45 | 55 | 70 | 75 | | *y* | 47.50 | 4.95 | 3.19 | 1.83 | 1.54 |   ​ |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *REFERENCES:* | 1.1.80 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:15 PM | | *DATE MODIFIED:* | 11/21/2014 2:50 AM | |

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| 15. A hospital purchases a new magnetic resonance imaging (MRI) machine for $600,000. The depreciated value *y* (reduced value) after *t* years is given by *y* = 600,000 – 20,000*t*, 0 ≤ *t* ≤ 6. Sketch the graph of the equation.  ​   |  |  |  | | --- | --- | --- | |  | a. |  | |  | b. |  | |  | c. |  | |  | d. |  | |  | e. |  |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *REFERENCES:* | 1.1.75 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:15 PM | | *DATE MODIFIED:* | 7/6/2021 12:00 AM | |

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| 16. Determine which of the following point lies on the graph of the equation.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | (3, –18) | |  | b. | (6, 5) | |  | c. | (4, 5) | |  | d. | (3, 6) | |  | e. | (3, 7) |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *REFERENCES:* | 1.1.14 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:15 PM | | *DATE MODIFIED:* | 7/6/2021 12:18 AM | |

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| 17. Complete the table.   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | *x* | –12 | –8​ | 4 | 12 | 16 | | *y* |  |  |  |  |  | | (*x,y*) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  | a. | ​   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | *x* | –12 | –8 | 4 | 12 | 16 | | *y* | –10 | –7 | 2 | 8 | 11 | | (*x,y*) | (–10, –12) | (–7, –8) | (4, 2) | (12, 8) | (16, 11) |   ​  ​ | |  | b. | ​   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | *x* | –12 | –8 | 4 | 12 | 16 | | *y* | –10 | –7 | 2 | 8 | 11 | | (*x,y*) | (–12, –10) | (–8, –7) | (2, 4) | (12, 8) | (11, 16) |   ​ | |  | c. | |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | *x* | –12 | –8 | 4 | 12 | 16 | | *y* | –10 | –7 | 2 | 8 | 11 | | (*x,y*) | (–12, –10) | (–7, –8) | (2, 4) | (12, 8) | (16, 11) | | |  | d. | |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | *x* | –12 | –8 | 4 | 12 | 16 | | *y* | –10 | –7 | 2 | 8 | 11 | | (*x,y*) | (–12, –10) | (–8, –7) | (4, 2) | (12, 8) | (16, 11) | | |  | e. | |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | *x* | –12 | –8 | 4 | 12 | 16 | | *y* | –10 | –7 | 2 | 8 | 11 | | (*x,y*) | (–12, –10) | (–8, 2) | (4, –7) | (12, 8) | (16, 11) | |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *REFERENCES:* | 1.1.16 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:15 PM | | *DATE MODIFIED:* | 9/19/2014 5:34 AM | |

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| 18. Graphically estimate the *x*- and *y*-intercepts of the graph.  ​  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | *x*-intercept: (0, 1)  *y*-intercept: (0, 3) | |  | b. | *x*-intercept: (1, 0)  *y*-intercept: (3, 0) | |  | c. | *x*-intercept: (0, 1)  *y*-intercept: (3, 0) | |  | d. | *x*-intercept: (1, 0)  *y*-intercept: (0, 3) | |  | e. | *x*-intercept: (1, 0)  *y*-intercept: (0, –3) |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *REFERENCES:* | 1.1.23 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:15 PM | | *DATE MODIFIED:* | 9/19/2014 5:50 AM | |

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| 19. Identify any intercepts and test for symmetry. Then sketch the graph of the equation.  ​  *y* = |*x* – 4|  ​   |  |  |  | | --- | --- | --- | |  | a. | *x*- intercept: (4, 0)  *y*- intercept: (0, 4)  No symmetry  ​  ​ | |  | b. | *x*- intercept: (-4, 0)  *y*- intercept: (0, 4)  No symmetry  ​ | |  | c. | *x*- intercept: (4, 0)  *y*- intercept: (4, 0)  No symmetry  ​ | |  | d. | *x*- intercept: (4, 0)  *y*- intercept: (0, 4)  No symmetry  ​ | |  | e. | *x*- intercept: (4, 0)  *y*- intercept: (4, 0)  No symmetry  ​ |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *REFERENCES:* | 1.1.45 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:15 PM | | *DATE MODIFIED:* | 11/18/2014 2:44 AM | |

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| 20. Identify any intercepts and test for symmetry. Then sketch the graph of the equation.  ​  *y* = 2 – |*x*|  ​   |  |  |  | | --- | --- | --- | |  | a. | *x*- intercepts: (±2, 0)  *y*- intercept: (0, 2)  *y*-axis symmetry | |  | b. | *x*- intercept: (-2, 0)  *y*- intercept: (0, 2)  *y*-axis symmetry | |  | c. | *x*- intercept: (2, 0)  *y*- intercepts: (0, ±2)  *y*-axis symmetry | |  | d. | *x*- intercept: (2, 0)  *y*- intercept: (0, 2)  *y*-axis symmetry | |  | e. | *x*- intercept: (-2, 0)  *y*- intercept: (0, 2)  *y*-axis symmetry |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *REFERENCES:* | 1.1.46 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:15 PM | | *DATE MODIFIED:* | 7/6/2021 12:21 AM | |

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| 21. Identify any intercepts and test for symmetry. Then sketch the graph of the equation.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | *x*-intercept: (2, 0)  *y*-intercept: none  No symmetry  ​ | |  | b. | *x*-intercept: (2, 0)  *y*-intercept: none  No symmetry​ | |  | c. | *x*-intercept: (2, 0)  *y*-intercept: (0, )  No symmetry  ​ | |  | d. | *x*-intercept: (-2, 0)  *y*-intercept: none  No symmetry  ​​ | |  | e. | *x*-intercept: (-2, 0)  *y*-intercept: none  No symmetry  ​ |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *REFERENCES:* | 1.1.43 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:15 PM | | *DATE MODIFIED:* | 11/18/2014 2:40 AM | |

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| 22. Use a graphing utility to graph the equation. Use a standard setting. Approximate any intercepts.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | ​Intercepts: (0, 7), (-14, 0)  ​ | |  | b. | Intercepts: (-14, 0), (0, -7)  ​ | |  | c. | ​Intercepts: (14, 0), (0, -7)  ​ | |  | d. | ​Intercepts: (0, 8), (15, 0)  ​ | |  | e. | ​Intercepts: (14, 0), (0, 7)  ​ |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *REFERENCES:* | 1.1.49 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:15 PM | | *DATE MODIFIED:* | 11/18/2014 2:34 AM | |

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| 23. Use a graphing utility to graph the equation. Use a standard setting. Approximate any intercepts.  ​  *y* = |*x* + 2|  ​   |  |  |  | | --- | --- | --- | |  | a. | Intercepts: (0, -2), (0, 2)  ​ | |  | b. | ​Intercepts: (-2, 0), (0, -2)  ​ | |  | c. | ​Intercepts: (2, 0), (0, 2)  ​ | |  | d. | Intercepts: (-2, 0), (0, 2)  ​ | |  | e. | ​Intercepts: (-2, 0), (2, 0)  ​ |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *REFERENCES:* | 1.1.59 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:15 PM | | *DATE MODIFIED:* | 11/18/2014 2:29 AM | |

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| 24. Use a graphing utility to graph the equation. Use a standard setting. Approximate any intercepts.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | ​Intercepts: (0, 0), (-2, 0)  ​ | |  | b. | ​Intercepts: (0, 0), (2, 0)​ | |  | c. | ​Intercepts: (0, 0), (-2, 0)  ​ | |  | d. | ​Intercepts: (0, 0), (-2, 0)  ​ | |  | e. | Intercepts: (0, 0), (6, 0)  ​ |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *REFERENCES:* | 1.1.57 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:15 PM | | *DATE MODIFIED:* | 5/8/2015 12:08 PM | |

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| 25. Determine which of the following points lies on the graph of the equation.  ​  *y* = 3 – |*x* – 1|  ​   |  |  |  | | --- | --- | --- | |  | a. | (4, 2) | |  | b. | (6, 0) | |  | c. | (5, 0) | |  | d. | (4, 0) | |  | e. | (4, 1) |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *REFERENCES:* | 1.1.10 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:15 PM | | *DATE MODIFIED:* | 7/6/2021 12:30 AM | |

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| 26. Complete the table. Use the resulting solution points to sketch the graph of the equation.   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | *x* | –2 | –1 | 0 | 1 | 2 | | *y* |  |  |  |  |  | | (*x,y*) |  |  |  |  |  |     ​   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | *x* | 7 | 4 | –1 | –2 | –5 | | *y* |  |  |  |  |  | | (*x,y*) |  |  |  |  |  |   ​   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | *x* | 7 | 4 | –1 | –2 | –5 | | *y* |  |  |  |  |  | | (*x,y*) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  | a. | ​   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | *x* | –2 | –1 | 0 | 1 | 2 | | *y* | 9 | –3 | –7 | –3 | 9 | | (*x,y*) | (–2, 9) | (–1, –3) | (0, –7) | (1, –3) | (2, 9) | | |  | b. | ​   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | *x* | –2 | –1 | 0 | 1 | 2 | | *y* | –9 | 3 | 7 | 3 | –9 | | (*x,y*) | (–2, –9) | (–1, 3) | (0, 7) | (1, 3) | (2, –9) | | |  | c. | ​   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | *x* | –2 | –1 | 0 | 1 | 2 | | *y* | –9 | 3 | 7 | 3 | –9 | | (*x,y*) | (–2, –9) | (–1, 3) | (0, 7) | (1, 3) | (2, –9) | | |  | d. | ​   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | *x* | –2 | –1 | 0 | 1 | 2 | | *y* | 9 | –3 | –7 | –3 | 9 | | (*x,y*) | (–2, 9) | (–1, –3) | (0, –7) | (1, –3) | (2, 9) | | |  | e. | ​   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | *x* | –2 | –1 | 0 | 1 | 2 | | *y* | –4 | –1 | 0 | –1 | –4 | | (*x,y*) | (, ) | (, ) | (, ) | (, ) | (, ) | |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *REFERENCES:* | 1.1.18 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:15 PM | | *DATE MODIFIED:* | 7/6/2021 10:35 AM | |

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| 27. Graphically estimate the *x*- and *y*-intercepts of the graph.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | *x*-intercepts: (±3, 0)  *y*-intercept: (0, 81) | |  | b. | *x*-intercept: (3, 0)  *y*-intercept: (0, 81) | |  | c. | *x*-intercept: (–3, 0)  *y*-intercept: (0, 81) | |  | d. | *x*-intercepts: (±3, 0)  *y*-intercept: (0, 9) | |  | e. | *x*-intercept: (0, 3)  *y*-intercept: (0, 81) |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *REFERENCES:* | 1.1.20 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:15 PM | | *DATE MODIFIED:* | 7/6/2021 10:37 AM | |

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| 28. Graphically estimate the *x*- and *y*-intercepts of the graph.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | *x*-intercepts: (±1, 0), (0, 0)  *y*-intercept: (0, 0) | |  | b. | *x*-intercepts: (1, 0), (0, 0)  *y*-intercept: (0, 0) | |  | c. | *x*-intercepts: (-1, 0), (0, 0)  *y*-intercept: (0, 0) | |  | d. | *x*-intercepts: (0, ±1), (0, 0)  *y*-intercept: (0, 0) | |  | e. | *x*-intercepts: (0, 1), (0, 0)  *y*-intercept: (0, 0) |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *REFERENCES:* | 1.1.24 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:15 PM | | *DATE MODIFIED:* | 7/6/2021 10:38 AM | |

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| 29. Identify any intercepts and test for symmetry. Then sketch the graph of the equation.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | *x*- intercept: (, 0)  *y*- intercept: (0, ±6)  No symmetry | |  | b. | *x*- intercept: (, 0)  *y*- intercept: (0, -6)  No symmetry  ​ | |  | c. | *x*- intercept: (, 0)  *y*- intercept: (0, 6)  No symmetry | |  | d. | *x*- intercept: (, 0)  *y*- intercept: (0, 6)  No symmetry  ​ | |  | e. | *x*- intercept: (, 0)  *y*- intercept: (0, ±6)  No symmetry  ​ |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *REFERENCES:* | 1.1.42 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:15 PM | | *DATE MODIFIED:* | 11/19/2014 1:31 AM | |

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| 30. Assume that the graph has *y*-symmetry. Select the complete graph of the equation.  ​  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | ​  ​ | |  | b. | ​ | |  | c. | ​ | |  | d. | ​  ​ | |  | e. | ​ |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *REFERENCES:* | 1.1.33 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:15 PM | | *DATE MODIFIED:* | 11/19/2014 1:41 AM | |

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| 31. Assume that the graph has Origin symmetry. Select the complete graph of the equation.  ​  ​   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | a. | ​  ​ | b. | ​  ​ | |  | c. | ​  ​ | d. | ​ | |  | e. | ​ |  |  |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *REFERENCES:* | 1.1.35 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:15 PM | | *DATE MODIFIED:* | 11/19/2014 2:08 AM | |

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| 32. Identify any intercepts and test for symmetry. Then sketch the graph of the equation.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | *x*-intercept : none  *y*-intercept : (0, 3)  The graph has *y*-symmetry.  ​ | |  | b. | *x*-intercepts : (0, 0), (-3, 0)  *y*-intercept : (0, 0)  No symmetry | |  | c. | *x*-intercepts : (0, 0), (-3, 0)  *y*-intercept : (0, 0)  No symmetry  ​ | |  | d. | *x*-intercepts : (0, 0), (3, 0)  *y*-intercept : (0, 0)  No symmetry  ​ | |  | e. | *x*-intercepts : (0, 0), (3, 0)  *y*-intercept : (0, 0)  No symmetry  ​  ​ |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *REFERENCES:* | 1.1.41 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:15 PM | | *DATE MODIFIED:* | 7/6/2021 10:39 AM | |

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| 33. Use a graphing utility to graph the equation. Use a standard setting. Approximate any intercepts.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | ​Intercepts: (-2, 0), (2, 0), (0, 4) | |  | b. | ​  Intercepts: (-2, 0), (0, -4) | |  | c. | ​  Intercepts: (-2, 0), (2, 0), (0, -4) | |  | d. | ​Intercepts: (2, 0), (0, -4) | |  | e. | ​  Intercepts: (2, 0), (0, 4) |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *REFERENCES:* | 1.1.51 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:15 PM | | *DATE MODIFIED:* | 11/19/2014 2:47 AM | |

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| 34. Use a graphing utility to graph the equation. Use a standard setting. Approximate any intercepts.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | ​  Intercepts: (0, 0), (-2, 0) | |  | b. | ​  Intercepts: (0, 0) | |  | c. | Intercepts: (0, 0), (2, 0)​ | |  | d. | ​  Intercepts: (2, 0), (0, 0) | |  | e. | ​  Intercepts: (-2, 0), (0, 0)  ​ |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *REFERENCES:* | 1.1.52 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:15 PM | | *DATE MODIFIED:* | 5/9/2015 6:21 AM | |

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| 35. Determine which point lies on the graph of the equation .   |  |  |  | | --- | --- | --- | |  | a. | (0, 5) | |  | b. | (1, 5) | |  | c. | (0, 3) | |  | d. | (2, 4) | |  | e. | (1, 3) |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *REFERENCES:* | 1.1.9a | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:15 PM | | *DATE MODIFIED:* | 7/6/2021 10:40 AM | |

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| 36. Determine which point does **not** lie on the graph of the equation .   |  |  |  | | --- | --- | --- | |  | a. | (-2, -15) | |  | b. | (-4, -17) | |  | c. | (7, -10) | |  | d. | (4, -6) | |  | e. | (0, -13) |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *REFERENCES:* | 1.1.10a | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:15 PM | | *DATE MODIFIED:* | 11/19/2014 3:10 AM | |

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| 37. Create and complete a table to find the *x* and *y* coordinates of points that lie on the graph of the equation below. Plot at least 5 points along with the graph of the equation.   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | a. |  | b. |  | |  | c. |  | d. |  | |  | e. |  |  |  |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *REFERENCES:* | 1.1.15 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:15 PM | | *DATE MODIFIED:* | 11/20/2014 1:33 AM | |

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| 38. ​Find the *x*- and *y*-intercepts of the graph of the equation .  ​   |  |  |  | | --- | --- | --- | |  | a. | *​x*-intercept:  *y*-intercept: (0, 13) | |  | b. | ​  *x*-intercept:  *y*-intercept: (0, –7) | |  | c. | ​*x*-intercept: (–7, 0)  *y*-intercept: (0, 13) | |  | d. | ​*x*-intercept:  *y*-intercept: none | |  | e. | ​*​x*-intercept:  *y*-intercept: (0, 7) |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *REFERENCES:* | 1.1.21 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 11/20/2014 2:07 AM | | *DATE MODIFIED:* | 11/20/2014 3:05 AM | |

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| 39. Find the *x*- and *y*-intercepts of the graph of the equation .  ​   |  |  |  | | --- | --- | --- | |  | a. | *x*-intercept:  *y*-intercept: | |  | b. | ​  *x*-intercept:  *y*-intercepts: | |  | c. | *x*-intercept:  *y*-intercepts: | |  | d. | *x*-intercept:  *y*-intercept: | |  | e. | *x*-intercept:  *y*-intercept: |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *REFERENCES:* | 1.1.22 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 11/20/2014 2:42 AM | | *DATE MODIFIED:* | 7/6/2021 10:41 AM | |

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| 40. Use algebraic tests to check the following for symmetry with respect to the axes and the origin.  ​   |  |  |  | | --- | --- | --- | |  | a. | Symmetric with respect to the origin. | |  | b. | No symmetry. | |  | c. | Symmetric with respect to the *y*-axis. | |  | d. | Symmetric with respect to the *x*-axis. |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *REFERENCES:* | 1.1.26 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:15 PM | | *DATE MODIFIED:* | 11/20/2014 3:10 AM | |

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| 41. Use algebraic tests to check the following for symmetry with respect to the axes and the origin.   |  |  |  | | --- | --- | --- | |  | a. | No symmetry. | |  | b. | Symmetric with respect to the *y*-axis. | |  | c. | Symmetric with respect to the origin. | |  | d. | Symmetric with respect to the *x*-axis. |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *REFERENCES:* | 1.1.28 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:15 PM | | *DATE MODIFIED:* | 11/20/2014 3:12 AM | |

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| 42. Assume the graph has the indicated type of symmetry. Sketch the complete graph.  symmetric with respect to the *origin.*   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | a. |  | b. |  | |  | c. |  | d. |  | |  | e. |  |  |  |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *REFERENCES:* | 1.1.35 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:15 PM | | *DATE MODIFIED:* | 11/20/2014 3:48 AM | |

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| 43. Find the *x*- and *y*-intercepts of the graph of the equation *y* = 36 – 6*x*.   |  |  |  | | --- | --- | --- | |  | a. | *x*-intercept: (6, 0)  *y*-intercept: (0, -6) | |  | b. | *x*-intercept: (36, 0)  *y*-intercept: (0, 6) | |  | c. | *x*-intercept: (-6, 0)  *y*-intercept: (0, -36) | |  | d. | *x*-intercept: (36, 0)  *y*-intercept: (0, 36) | |  | e. | *x*-intercept: (6, 0)  *y*-intercept: (0, 36) |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *REFERENCES:* | 1.1.22 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:15 PM | | *DATE MODIFIED:* | 11/20/2014 3:50 AM | |

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| 44. ​Find the *x*- and *y*-intercepts of the graph of the equation .  ​   |  |  |  | | --- | --- | --- | |  | a. | *​x*-intercept:  *y*-intercept: none | |  | b. | ​*x*-intercept:  *y*-intercept: | |  | c. | ​*x*-intercept:  *y*-intercept: none | |  | d. | ​*x*-intercept:  *y*-intercept: | |  | e. | ​*​x*-intercept:  *y*-intercept: none |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *REFERENCES:* | 1.1.19 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 11/20/2014 6:18 AM | | *DATE MODIFIED:* | 5/11/2015 5:16 AM | |

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| 45. Write the standard form of the equation of the circle with the given characteristics.  center: (–1, –5); radius: 6   |  |  |  | | --- | --- | --- | |  | a. | ​ | |  | b. |  | |  | c. |  | |  | d. |  | |  | e. |  |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *REFERENCES:* | 1.1.63 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:15 PM | | *DATE MODIFIED:* | 11/20/2014 6:58 AM | |

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| 46. Write the standard form of the equation of the circle with the given characteristics.  center: (–5, –4); solution point: (–3, –7)   |  |  |  | | --- | --- | --- | |  | a. |  | |  | b. |  | |  | c. |  | |  | d. |  | |  | e. |  |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *REFERENCES:* | 1.1.65 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:15 PM | | *DATE MODIFIED:* | 11/20/2014 7:09 AM | |

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| 47. Write the standard form of the equation of the circle with the given characteristics.  endpoints of a diameter: (3, 4), (7, 8)   |  |  |  | | --- | --- | --- | |  | a. |  | |  | b. |  | |  | c. |  | |  | d. |  | |  | e. |  |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *REFERENCES:* | 1.1.68 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:15 PM | | *DATE MODIFIED:* | 11/20/2014 7:50 AM | |

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| 48. Find the center and radius of the circle .   |  |  |  | | --- | --- | --- | |  | a. | center: (0, 0), radius: 11 | |  | b. | center: (-1, 1), radius: 11 | |  | c. | center: (0, 0), radius: 7 | |  | d. | center: (-1, -1), radius: 7 | |  | e. | center: (–7, –11), radius: 7 |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *REFERENCES:* | 1.1.69 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:15 PM | | *DATE MODIFIED:* | 11/21/2014 2:03 AM | |

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| 49. Find the center and radius of the circle .   |  |  |  | | --- | --- | --- | |  | a. | center: (1, 5), radius 5 | |  | b. | center: (5, 1), radius 25 | |  | c. | center: (–5, –1), radius 5 | |  | d. | center: (–5, –1), radius 25 | |  | e. | center: (5, 1), radius 5 |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *REFERENCES:* | 1.1.71 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:15 PM | | *DATE MODIFIED:* | 11/21/2014 2:06 AM | |

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| 50. You purchase a jet ski for $10,000. The depreciated value, *y*, after *x* years is given by *y* = 10,000 – 1,500*x*. Sketch the graph of the equation given 0 ≤ *x* ≤ 6.  ​   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | a. |  | b. | ​  ​ | |  | c. |  | d. |  | |  | e. |  |  |  |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *REFERENCES:* | 1.1.76 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:15 PM | | *DATE MODIFIED:* | 7/6/2021 10:51 AM | |

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| 51. Find the graph of the equation.  ​  *f* (*x*) = | *x* – 2 |  ​   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | a. | ​ | b. | ​ | |  | c. | ​​ | d. | ​ |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:15 PM | | *DATE MODIFIED:* | 5/11/2015 5:18 AM | |

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| 52. Find the graph of the equation.  ​  ​   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | a. | ​ | b. | ​ | |  | c. | ​ | d. | ​ |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:15 PM | | *DATE MODIFIED:* | 5/11/2015 5:43 AM | |

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| 53. Find the value of *y* that corresponds to *x* = –4 in the graph of the equation 2*x* + 3*y* = 13.  ​   |  |  |  | | --- | --- | --- | |  | a. | 9 | |  | b. | –7 | |  | c. | –9 | |  | d. | 21 | |  | e. | 7 |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:15 PM | | *DATE MODIFIED:* | 11/21/2014 3:02 AM | |

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| 54. Find the value of *x* that corresponds to *y* = 7 in the graph of the equation 4*x* – 3*y* = –37.  ​   |  |  |  | | --- | --- | --- | |  | a. | 4 | |  | b. | –16 | |  | c. | –3 | |  | d. | 3 | |  | e. | –4 |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:15 PM | | *DATE MODIFIED:* | 11/21/2014 3:10 AM | |

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| 55. Find the *y*-intercept of the graph of the equation *y* = 3*x* + 18.  ​   |  |  |  | | --- | --- | --- | |  | a. | (0, 3) | |  | b. | (18, 0) | |  | c. | (-6, 0) | |  | d. | (0, 18) | |  | e. | (0, -6) |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:15 PM | | *DATE MODIFIED:* | 11/21/2014 3:14 AM | |

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| 56. Find the *x*-intercept of the graph of the equation *y* = 3*x* + 15.  ​   |  |  |  | | --- | --- | --- | |  | a. | (0, -5) | |  | b. | (0, 15) | |  | c. | (15, 0) | |  | d. | (0, 3) | |  | e. | (-5, 0) |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:15 PM | | *DATE MODIFIED:* | 11/21/2014 3:16 AM | |

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| 57. Find the *y*-intercept of the graph of the equation 4*y* = 3*x* + 12.  ​   |  |  |  | | --- | --- | --- | |  | a. | (0, -3) | |  | b. | (-4, 0) | |  | c. | (0, 3) | |  | d. | (0, -4) | |  | e. | (0, 12) |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:15 PM | | *DATE MODIFIED:* | 11/21/2014 3:17 AM | |

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| 58. Sketch the graph of the equation .  ​   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | a. |  | b. |  | |  | c. |  | d. |  | |  | e. |  |  |  |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:15 PM | | *DATE MODIFIED:* | 7/6/2021 10:52 AM | |

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| 59. Sketch the graph of the equation *y* = 2|*x* – 2| + 1.  ​   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | 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 4:15 PM | | *DATE MODIFIED:* | 7/6/2021 10:56 AM | |

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| 60. Find the *x*-intercept of the graph of the equation .  ​   |  |  |  | | --- | --- | --- | |  | a. | (0, -6) | |  | b. | (0, 6) | |  | c. | (6, 0) | |  | d. | (-6, 0) | |  | e. | (0, -18) |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:15 PM | | *DATE MODIFIED:* | 11/21/2014 4:02 AM | |

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| 61. Find any *x*- or *y*-intercepts for the graph of the equation .  ​   |  |  |  | | --- | --- | --- | |  | a. | *x*-intercept: (0, 12)  *y*-intercepts: (2, 0), (6, 0) | |  | b. | *x*-intercepts: (-2, 0), (-6, 0)  *y*-intercept: (0, 12) | |  | c. | *x*-intercepts: (2, 0), (6, 0)  *y*-intercepts: none | |  | d. | *x*-intercepts: (0, 2), (0, 6)  *y*-intercept: (12, 0) | |  | e. | *x*-intercepts: (2, 0), (6, 0)  *y*-intercept: (0, 12) |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:15 PM | | *DATE MODIFIED:* | 7/6/2021 11:00 AM | |

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| 62. Graph the circle .  ​   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | a. | ​ | b. | ​ | |  | c. | ​ | d. | ​  ​  ​  ​ | |  | e. | None of the above. |  |  |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:15 PM | | *DATE MODIFIED:* | 11/21/2014 4:21 AM | |

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| 63. Graph the circle .  ​   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | a. | ​ | b. | ​ | |  | c. | ​ | d. | ​ | |  | e. | ​ |  |  |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *STUDENT ENTRY MODE:* | Basic | | *DATE CREATED:* | 6/10/2014 4:15 PM | | *DATE MODIFIED:* | 5/11/2015 5:50 AM | |