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| 1. Find the inverse function of *f* informally.  ​  *f*(*x*) = 6*x*  ​   |  |  |  | | --- | --- | --- | |  | a. | *f*–1(*x*) = 6 – *x* | |  | b. | *f*–1(*x*) = 6 + *x* | |  | c. |  | |  | d. | *f*–1(*x*) = *x* – 6 | |  | e. | *f*(*x*) = 6*x* |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *REFERENCES:* | 2.7.7 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:18 PM | | *DATE MODIFIED:* | 9/27/2014 3:29 AM | |

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| 2. Find the inverse function of *f* informally.  ​  *f*(*x*) = *x* – 5  ​   |  |  |  | | --- | --- | --- | |  | a. | *f*–1(*x*) = – (*x* + 5) | |  | b. | ​ | |  | c. |  | |  | d. | *f*–1(*x*) = 5 – *x* | |  | e. | *f*–1(*x*) = *x* + 5 |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *REFERENCES:* | 2.7.10 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:18 PM | | *DATE MODIFIED:* | 9/27/2014 3:48 AM | |

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| 3. Find the inverse function of *f* informally.  ​  *f*(*x*) = *x*4  ​   |  |  |  | | --- | --- | --- | |  | a. | ​ | |  | b. |  | |  | c. |  | |  | d. |  | |  | e. |  |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *REFERENCES:* | 2.7.14 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:18 PM | | *DATE MODIFIED:* | 9/27/2014 4:02 AM | |

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| 4. Select the correct graph, showing *f* and *g* are inverse functions.  ​  ​   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | a. |  | b. |  | |  | c. |  | d. |  | |  | e. |  |  |  |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *REFERENCES:* | 2.7.23b | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:18 PM | | *DATE MODIFIED:* | 9/30/2014 8:49 AM | |

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| 5. Select the correct graph, showing *f* and *g* are inverse functions.  ​  ​   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | a. |  | b. |  | |  | c. |  | d. |  | |  | e. |  |  |  |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *REFERENCES:* | 2.7.25b | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:18 PM | | *DATE MODIFIED:* | 9/30/2014 9:58 AM | |

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| 6. Select the correct graph, showing *f* and *g* are inverse functions.  ​  ​   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | a. |  | b. |  | |  | c. |  | d. |  | |  | e. |  |  |  |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *REFERENCES:* | 2.7.27b | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:18 PM | | *DATE MODIFIED:* | 9/30/2014 10:05 AM | |

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| 7. Select the correct graph, showing *f* and *g* are inverse functions.  ​  ​   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | a. |  | b. |  | |  | c. |  | d. |  | |  | e. |  |  |  |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *REFERENCES:* | 2.7.29b | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:18 PM | | *DATE MODIFIED:* | 9/30/2014 10:24 AM | |

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| 8. Select the correct graph, showing *f* and *g* are inverse functions.  ​  ​   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | a. |  | b. |  | |  | c. |  | d. |  | |  | e. |  |  |  |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *REFERENCES:* | 2.7.31b | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:18 PM | | *DATE MODIFIED:* | 9/30/2014 10:41 AM | |

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| 9. Select the correct graph, showing *f* and *g* are inverse functions.  ​  ​   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | a. | ​ | b. | ​ | |  | c. |  | d. |  | |  | e. |  |  |  |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *REFERENCES:* | 2.7.33b | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:18 PM | | *DATE MODIFIED:* | 9/30/2014 11:07 AM | |

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| 10. Use the tables of values for *y* = *f*(*x*) to complete a table for *y* = *f*–1(*x*).   |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | *x* | –3 | –2 | 0 | 1 | 2 | 3 | | *f*(*x*) | –4 | –2 | 2 | 4 | 6 | 8 |   ​   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  | a. | ​   |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | *​x* | ​–4 | ​–2 | ​2 | 4​ | ​6 | ​8 | | ​ *f*–1(*x*) | ​–3 | ​–2 | ​0 | ​1 | ​8 | ​3 | | |  | b. | ​   |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | ​*x* | ​–4 | ​–2 | ​2 | ​4 | ​6 | ​6 | | ​ *f*–1(*x*) | ​–2 | ​–2 | ​0 | ​1 | ​2 | ​3 | | |  | c. | ​   |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | ​*x* | ​–4 | ​–2 | ​2 | ​4 | ​6 | ​8 | | ​ *f*–1(*x*) | ​–3 | ​0 | ​1 | ​1 | ​8 | ​3 | | |  | d. | ​   |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | ​*x* | ​–4 | ​–2 | ​2 | ​4 | ​6 | ​8 | | ​ *f*–1(*x*) | ​–3 | ​–2 | ​0 | ​6 | ​2 | ​3 | | |  | e. | ​   |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | ​*x* | ​–4 | ​–2 | ​2 | ​4 | ​6 | ​8 | | ​ *f*–1(*x*) | ​–3 | ​–2 | ​0 | ​1 | ​2 | ​3 | |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *REFERENCES:* | 2.2.37 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:18 PM | | *DATE MODIFIED:* | 5/18/2015 4:00 AM | |

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| 11. Does the function have an inverse function?  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | No | |  | b. | Yes |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *REFERENCES:* | 2.2.39 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:18 PM | | *DATE MODIFIED:* | 10/22/2014 7:00 AM | |

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| 12. Does the function have an inverse function?  ​  ​   |  |  |  | | --- | --- | --- | |  | a. | No | |  | b. | Yes |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *REFERENCES:* | 2.2.41 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:18 PM | | *DATE MODIFIED:* | 10/22/2014 7:01 AM | |

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| 13. Select the graph of the function, and use the Horizontal Line Test to determine whether the function is one-to-one and so has an inverse function.  ​  ​  ​   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | a. | The function has an inverse. | b. | ​  The function has an inverse. | |  | c. | ​  The function has an inverse. | d. | ​  The function has an inverse. | |  | e. | ​  The function has an inverse. |  |  |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *REFERENCES:* | 2.2.43 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:18 PM | | *DATE MODIFIED:* | 10/22/2014 7:03 AM | |

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| 14. Select the graph of the function, and use the Horizontal Line Test to determine whether the function is one-to-one and so has an inverse function.  ​  *g*(*x*) = |*x* + 5| – |*x* – 5|  ​   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | a. | ​  The function does not have inverse. | b. | ​  The function does not have inverse. | |  | c. | ​  The function does not have inverse. | d. | ​  The function does not have inverse. | |  | e. | The function does not have inverse. |  |  |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *REFERENCES:* | 2.2.45 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:18 PM | | *DATE MODIFIED:* | 9/30/2014 8:24 AM | |

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| 15. Select the graph of the function, and use the Horizontal Line Test to determine whether the function is one-to-one and so has an inverse function.  ​  ​  ​   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | a. | ​  The function does not have inverse. | b. | ​  The function does not have inverse. | |  | c. | ​  The function does not have inverse. | d. | ​  The function does not have inverse. | |  | e. | ​  The function does not have inverse. |  |  |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *REFERENCES:* | 2.2.47 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:18 PM | | *DATE MODIFIED:* | 10/22/2014 7:05 AM | |

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| 16. Select the graph of *f* and *f*–1 on the same set of coordinate axes.  ​  *f*(*x*) = 2*x* – 3  ​   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | a. |  | b. |  | |  | c. |  | d. |  | |  | e. | ​ |  |  |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *REFERENCES:* | 2.2.49b | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:18 PM | | *DATE MODIFIED:* | 10/1/2014 6:21 AM | |

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| 17. Find the inverse function of *g*(*x*) = *x*2 – 3 informally.  ​   |  |  |  | | --- | --- | --- | |  | a. |  | |  | b. |  | |  | c. |  | |  | d. |  | |  | e. |  |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *REFERENCES:* | 2.2..51a | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:18 PM | | *DATE MODIFIED:* | 10/22/2014 7:09 AM | |

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| 18. Find the inverse function of .  ​   |  |  |  | | --- | --- | --- | |  | a. |  | |  | b. |  | |  | c. |  | |  | d. |  | |  | e. |  |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *REFERENCES:* | 2.2..53a | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:18 PM | | *DATE MODIFIED:* | 10/1/2014 6:35 AM | |

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| 19. Select the graph of *f* and *f*–1 on the same set of coordinate axes.  ​    ​   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | a. | ​ | b. |  | |  | c. | ​ | d. | ​ | |  | e. |  |  |  |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *REFERENCES:* | 2.2.55b | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:18 PM | | *DATE MODIFIED:* | 10/1/2014 6:55 AM | |

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| 20. Determine whether the function has an inverse function. If it does, find the inverse function.  ​  *g*(*x*) = *x*7  ​   |  |  |  | | --- | --- | --- | |  | a. |  | |  | b. | *g*–1(*x*) = –7*x* | |  | c. | ​ | |  | d. | *g*–1(*x*) = 7*x* | |  | e. | The inverse exists, but none of the above |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *REFERENCES:* | 2.7.63 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:18 PM | | *DATE MODIFIED:* | 10/1/2014 7:25 AM | |

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| 21. Determine whether the function has an inverse function. If it does, find the inverse function.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. |  | |  | b. |  | |  | c. |  | |  | d. |  | |  | e. | No inverse |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *REFERENCES:* | 2.7.65 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:18 PM | | *DATE MODIFIED:* | 10/1/2014 7:29 AM | |

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| 22. Determine whether the function has an inverse function. If it does, find the inverse function.  ​  *f*(*x*) = –2  ​   |  |  |  | | --- | --- | --- | |  | a. | *f*–1(*x*) = 2 | |  | b. |  | |  | c. |  | |  | d. | *f*–1(*x*) = –2 | |  | e. | No inverse |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *REFERENCES:* | 2.7.67 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:18 PM | | *DATE MODIFIED:* | 10/1/2014 7:32 AM | |

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| 23. Determine whether the function has an inverse function. If it does, find the inverse function.  ​  *f*(*x*) = (*x* + 4)2, *x* ≥ –4  ​   |  |  |  | | --- | --- | --- | |  | a. |  | |  | b. | *f*–1(*x*) = –(*x* + 4)2 | |  | c. | *f*–1(*x*) = (*x* + 4)–2 | |  | d. | ​ | |  | e. | No inverse |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *REFERENCES:* | 2.7.69 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:18 PM | | *DATE MODIFIED:* | 10/1/2014 8:05 AM | |

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| 24. Determine whether the function has an inverse function. If it does, find the inverse function.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. |  | |  | b. |  | |  | c. |  | |  | d. |  | |  | e. | No inverse |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *REFERENCES:* | 2.7.71 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:18 PM | | *DATE MODIFIED:* | 10/1/2014 8:12 AM | |

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| 25. Determine whether the function has an inverse function. If it does, find the inverse function.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. |  | |  | b. |  | |  | c. |  | |  | d. |  | |  | e. | No inverse |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *REFERENCES:* | 2.7.73 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:18 PM | | *DATE MODIFIED:* | 10/1/2014 8:19 AM | |

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| 26. Determine whether the function has an inverse function. If it does, find the inverse function.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. |  | |  | b. |  | |  | c. |  | |  | d. |  | |  | e. | No Inverse |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *REFERENCES:* | 2.7.75 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:18 PM | | *DATE MODIFIED:* | 10/22/2014 7:25 AM | |

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| 27. Restrict the domain of the function *f* so that the function is one-to-one and has an inverse function. Then find the inverse function *f*–1. State the domains and ranges of *f* and *f*–1.  ​  *f*(*x*) = (*x* – 5)2  ​   |  |  |  | | --- | --- | --- | |  | a. | ​  The domain of *f* and the range of *f*–1 are all real numbers *x* such that *x* ≥ 5.  The domain of *f*–1 and the range of *f* are all real numbers *x* such that *x* ≥ 0. | |  | b. | ​  The domain of *f* and the range of *f*–1 are all real numbers *x* such that *x* ≥ 0.  The domain of *f*–1 and the range of *f* are all real numbers *x* such that *x* ≥ –5. | |  | c. | ​  The domain of *f* and the range of *f*–1 are all real numbers *x* such that *x* ≥ 5.  The domain of *f*–1 and the range of *f* are all real numbers *x* such that *x* ≥ 0. | |  | d. | ​  The domain of *f* and the range of *f*–1 are all real numbers *x* such that *x* ≥ 0.  The domain of *f*–1 and the range of *f* are all real numbers *x* such that *x* ≥ 5. | |  | e. | ​  The domain of *f* and the range of *f*–1 are all real numbers *x* such that *x* ≥ –5.  The domain of *f*–1 and the range of *f* are all real numbers *x* such that *x* ≥ 0. |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *REFERENCES:* | 2.7.77 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:18 PM | | *DATE MODIFIED:* | 10/22/2014 7:29 AM | |

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| 28. Restrict the domain of the function *f* so that the function is one-to-one and has an inverse function. Then find the inverse function *f*–1. State the domains and ranges of *f* and *f*–1.  ​  *f*(*x*) = |*x* + 5|  ​   |  |  |  | | --- | --- | --- | |  | a. | *f*​–1(*x*) = *x* – 5  ​  The domain of *f* and the range of *f*–1 are all real numbers *x* such that *x* ≥ –5.  The domain of *f*–1 and the range of *f* are all real numbers *x* such that *x* ≥ 0. | |  | b. | *f*​–1(*x*) = *x* + 5  ​  The domain of *f* and the range of *f*–1 are all real numbers *x* such that *x* ≥ 0.  The domain of *f*–1 and the range of *f* are all real numbers *x* such that *x*≥ –5*.* | |  | c. | *f*​–1(*x*) = *x* – 5  ​  The domain of *f* and the range of *f*–1 are all real numbers *x* such that *x* ≥ 0.  The domain of *f*–1 and the range of *f* are all real numbers *x* such that *x*≥ 5. | |  | d. | *f*​–1(*x*) = *x* + 5  ​  The domain of *f* and the range of *f*–1 are all real numbers *x* such that *x*≥ 5.  The domain of *f*–1 and the range of *f* are all real numbers *x* such that *x* ≥ 0. | |  | e. | *f*​–1(*x*) = *x* – 5  ​  The domain of *f* and the range of *f*–1 are all real numbers *x* such that *x*≥ 5.  The domain of *f*–1 and the range of *f* are all real numbers *x* such that *x* ≥ 0. |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *REFERENCES:* | 2.7.79 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:18 PM | | *DATE MODIFIED:* | 10/22/2014 7:32 AM | |

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| 29. Restrict the domain of the function *f* so that the function is one-to-one and has an inverse function. Then find the inverse function *f*–1. State the domains and ranges of *f* and *f*–1.  ​  *f*(*x*) = –6*x*2 + 2  ​   |  |  |  | | --- | --- | --- | |  | a. | The domain of *f* and the range of *f*–1 are all real numbers *x* such that *x* ≥ 0.  The domain of *f*–1 and the range of *f* are all real numbers *x* such that *x* ≤ 2.  ​ | |  | b. | The domain of *f* and the range of *f*–1 are all real numbers *x* such that *x* ≥ 0.  The domain of *f*–1 and the range of *f* are all real numbers *x* such that *x* ≤ 2.  ​ | |  | c. | The domain of *f* and the range of *f*–1 are all real numbers *x* such that *x* ≥ 0.  The domain of *f*–1 and the range of *f* are all real numbers *x* such that *x* ≤ 2.  ​ | |  | d. | The domain of *f* and the range of *f*–1 are all real numbers *x* such that *x* ≥ 0.  The domain of  *f*–1 and the range of *f* are all real numbers *x* such that *x* ≤ –2.  ​ | |  | e. | The domain of *f* and the range of *f*–1 are all real numbers *x* such that *x* ≥ 0.  The domain of *f*–1 and the range of *f* are all real numbers *x* such that *x* ≤ 2. |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *REFERENCES:* | 2.7.83 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:18 PM | | *DATE MODIFIED:* | 10/22/2014 7:42 AM | |

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| 30. Restrict the domain of the function *f* so that the function is one-to-one and has an inverse function. Then find the inverse function *f*–1. State the domains and ranges of *f* and *f*–1.  ​  *f*(*x*) = |*x* – 9| + 1  ​   |  |  |  | | --- | --- | --- | |  | a. | *f*–1(*x*) = *x* + 8  The domain of *f* and the range of *f*–1 are all real numbers *x* such that *x* ≥ 9.  The domain of *f*–1 and the range of *f* are all real numbers *x* such that *x* ≥ 1. | |  | b. | *f*–1(*x*) = *x* – 8  The domain of *f* and the range of *f*–1 are all real numbers *x* such that *x* ≥ 9.  The domain of *f*–1 and the range of *f* are all real numbers *x* such that *x* ≥ 1. | |  | c. | *f*–1(*x*) = –*x* – 8  The domain of *f* and the range of *f*–1 are all real numbers *x* such that *x* ≥ 1.  The domain of *f*–1 and the range of *f* are all real numbers *x* such that *x* ≥ –9. | |  | d. | *f*–1(*x*) = *x* + 8  The domain of *f* and the range of *f*–1 are all real numbers *x* such that *x* ≥ –9.  The domain of *f*–1 and the range of *f* are all real numbers *x* such that *x* ≥ 1. | |  | e. | *f*–1(*x*) = –*x* + 8  The domain of *f* and the range of *f*–1 are all real numbers *x* such that *x* ≥ 1.  The domain of *f*–1 and the range of *f* are all real numbers *x* such that *x* ≥ 9. |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *REFERENCES:* | 2.7.85 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:18 PM | | *DATE MODIFIED:* | 10/22/2014 7:51 AM | |

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| 31. Use the functions given by  and *g*(*x*) = *x*3 to find (*f*–1 º *g*–1)(1).  ​   |  |  |  | | --- | --- | --- | |  | a. | 14 | |  | b. | 12 | |  | c. | 16 | |  | d. | 20 | |  | e. | 18 |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *REFERENCES:* | 2.7.87 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:18 PM | | *DATE MODIFIED:* | 10/22/2014 8:00 AM | |

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| 32. Use the functions given by  and *g*(*x*) = *x*3 to find (*g*–1 º *f*–1)(–5).  ​   |  |  |  | | --- | --- | --- | |  | a. | –2 | |  | b. | 0 | |  | c. | –4 | |  | d. | 2 | |  | e. | 4 |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *REFERENCES:* | 2.7.88 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:18 PM | | *DATE MODIFIED:* | 10/22/2014 8:12 AM | |

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| 33. Use the functions given by  and *g*(*x*) = *x*3 to find (*f*–1 º *f*–1)(–5).  ​   |  |  |  | | --- | --- | --- | |  | a. | 36 | |  | b. | 44 | |  | c. | 40 | |  | d. | 38 | |  | e. | 42 |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *REFERENCES:* | 2.7.89 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:18 PM | | *DATE MODIFIED:* | 10/22/2014 8:19 AM | |

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| 34. Use the functions given by  and *g*(*x*) = *x*3 to find (*f* º *g*)–1.  ​   |  |  |  | | --- | --- | --- | |  | a. |  | |  | b. |  | |  | c. |  | |  | d. |  | |  | e. |  |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *REFERENCES:* | 2.7.91 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:18 PM | | *DATE MODIFIED:* | 10/22/2014 8:21 AM | |

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| 35. Use the functions given by  and *g*(*x*) = *x*3 to find *g*–1 º *f*–1.  ​   |  |  |  | | --- | --- | --- | |  | a. |  | |  | b. |  | |  | c. |  | |  | d. |  | |  | e. |  |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *REFERENCES:* | 2.7.92 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:18 PM | | *DATE MODIFIED:* | 10/22/2014 8:30 AM | |

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| 36. Use the functions given by *f*(*x*) = *x* + 6 and *g*(*x*) = 7*x* – 3 to find *g*–1 º *f*–1.  ​   |  |  |  | | --- | --- | --- | |  | a. |  | |  | b. |  | |  | c. |  | |  | d. |  | |  | e. |  |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *REFERENCES:* | 2.7.93 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:18 PM | | *DATE MODIFIED:* | 10/22/2014 8:33 AM | |

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| 37. Use the functions given by *f*(*x*) = *x* + 2 and *g*(*x*) = 2*x* – 5 to find (*f* º *g*)–1.  ​   |  |  |  | | --- | --- | --- | |  | a. |  | |  | b. |  | |  | c. |  | |  | d. |  | |  | e. |  |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *REFERENCES:* | 2.7.95 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:18 PM | | *DATE MODIFIED:* | 5/18/2015 4:05 AM | |

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| 38. Your wage is $11.00 per hour plus $0.50 for each unit produced per hour. So, your hourly wage in terms of the number of units produced *x* is *y* = 11 + 0.50*x*. Find the inverse function. What does each variable represent in the inverse function?  ​   |  |  |  | | --- | --- | --- | |  | a. | *x* = hourly wage; *y* = numbers of units produced | |  | b. | *y* = 11 + 0.50*x*  *x* = hourly wage; *y* = numbers of units produced  ​ | |  | c. | *x* = hourly wage; *y* = numbers of units produced  ​ | |  | d. | *x* = hourly wage; *y* = numbers of units produced  ​ | |  | e. | *y* = 11 – 0.50*x*  *x* = hourly wage; *y* = numbers of units produced  ​ |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *REFERENCES:* | 2.7.101a | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:18 PM | | *DATE MODIFIED:* | 10/22/2014 8:37 AM | |

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| 39. The function given by *y* = 0.03*x*2 + 245.50, 0 < *x* < 100 approximates the exhaust temperature *y* in degrees Fahrenheit, *x* where is the percent load for a diesel engine. Find the inverse function.  ​   |  |  |  | | --- | --- | --- | |  | a. |  | |  | b. |  | |  | c. |  | |  | d. |  | |  | e. |  |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *REFERENCES:* | 2.7.102a | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 6/10/2014 4:18 PM | | *DATE MODIFIED:* | 10/22/2014 8:40 AM | |

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| 40. ​Use the graph of the function f to create a table of values for the given points. Then create a second table that can be used to find *f*–1.  ​  ​  ​   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  | a. | ​   |  |  |  |  |  | | --- | --- | --- | --- | --- | | ​*x* | ​1 | ​4 | ​7 | ​8 | | ​*y* | ​1 | ​4 | ​7 | ​9 |   ​   |  |  |  |  |  | | --- | --- | --- | --- | --- | | ​*x* | ​1 | ​4 | ​7 | ​9 | | ​*f*–1(*x*) | ​1 | ​4 | ​7 | ​8 | | |  | b. | ​   |  |  |  |  |  | | --- | --- | --- | --- | --- | | ​*x* | ​1 | ​4 | ​7 | ​9 | | ​*y* | ​1 | 4​ | ​7 | ​8 |   ​   |  |  |  |  |  | | --- | --- | --- | --- | --- | | ​*x* | ​1 | ​4 | ​7 | ​8 | | ​*f*–1(*x*) | ​1 | ​4 | ​7 | ​9 | | |  | c. | ​   |  |  |  |  |  | | --- | --- | --- | --- | --- | | ​*x* | ​1 | ​4 | ​7 | ​8 | | ​*y* | ​1 | ​4 | ​7 | ​9 |   ​   |  |  |  |  |  | | --- | --- | --- | --- | --- | | ​*x* | ​1 | ​4 | ​7 | ​9 | | ​*f*–1(*x*) | ​–1 | ​–4 | ​–7 | ​–8 | | |  | d. | ​   |  |  |  |  |  | | --- | --- | --- | --- | --- | | ​*x* | –​1 | ​–4 | ​–7 | ​–9 | | ​*y* | ​1 | ​4 | ​7 | ​8 |   ​   |  |  |  |  |  | | --- | --- | --- | --- | --- | | ​*x* | ​1 | ​4 | ​7 | ​8 | | ​*f*–1(*x*) | ​1 | ​4 | ​7 | ​9 | | |  | e. | ​   |  |  |  |  |  | | --- | --- | --- | --- | --- | | ​*x* | ​–1 | ​–4 | ​–7 | ​–9 | | ​*y* | ​1 | ​4 | ​7 | ​8 |   ​   |  |  |  |  |  | | --- | --- | --- | --- | --- | | ​*x* | ​1 | ​4 | ​7 | ​9 | | ​*f*–1(*x*) | ​–1 | ​–4 | ​–7 | ​–8 | |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 10/1/2014 11:27 AM | | *DATE MODIFIED:* | 10/22/2014 8:41 AM | |

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| 41. Consider the functions given by *f*(*x*) = *x* + 3 and *f*–1(*x*) = *x* – 3. Evaluate *f*(*f*–1(*x*)) and *f*–1(*f*(*x*)) for the indicated values of *x*. What can you conclude about the functions?   |  |  |  |  |  | | --- | --- | --- | --- | --- | | *x* | –1 | 0 | 4 | 49 | | *f*(*f*–1(*x*)) |  |  |  |  | | *f*–1(*f*(*x*)) |  |  |  |  |   ​   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  | a. | ​​   |  |  |  |  |  | | --- | --- | --- | --- | --- | | ​*x* | ​–1 | ​0 | ​4 | ​49 | | ​*f*(*f*–1(*x*)) | ​–1 | ​0 | ​–4 | ​–49 | | ​*f*–1(*f*(*x*)) | ​–1 | ​0 | ​4 | ​49 |   We can conclude that, both the functions have the same value for negative variables. | |  | b. | ​​   |  |  |  |  |  | | --- | --- | --- | --- | --- | | ​*x* | ​–1 | ​0 | ​4 | ​49 | | ​*f*(*f*–1(*x*)) | ​–1 | ​0 | ​4 | ​49 | | ​*f*–1(*f*(*x*)) | ​–1 | ​0 | ​4 | ​49 |   We can conclude that, both the functions have the same value. | |  | c. | ​​   |  |  |  |  |  | | --- | --- | --- | --- | --- | | ​*x* | ​–1 | ​0 | ​4 | ​49 | | ​*f*(*f*–1(*x*)) | ​–1 | ​0 | ​4 | ​49 | | ​*f*–1(*f*(*x*)) | ​–1 | ​0 | ​–4 | ​–49 |   We can conclude that, both the functions have the same value for negative variables. | |  | d. | ​​   |  |  |  |  |  | | --- | --- | --- | --- | --- | | ​*x* | ​–1 | ​0 | ​4 | ​49 | | ​*f*(*f*–1(*x*)) | ​–1 | ​0 | ​–4 | ​49 | | ​*f*–1(*f*(*x*)) | ​–1 | ​0 | ​4 | ​–49 |   We can conclude that, both the functions are opposite of each other. | |  | e. | ​​   |  |  |  |  |  | | --- | --- | --- | --- | --- | | ​*x* | ​–1 | ​0 | ​4 | ​49 | | ​*f*(*f*–1(*x*)) | ​–1 | ​0 | ​4 | ​–49 | | ​*f*–1(*f*(*x*)) | ​–1 | ​0 | ​–4 | 49​ |   We can conclude that, both the functions are opposite of each other. |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *REFERENCES:* | 2.7.114 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:18 PM | | *DATE MODIFIED:* | 5/18/2015 4:07 AM | |

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| 42. Restrict the domain of *f*(*x*) = *x*2 + 5 to *x* ≥ 0. Use a graphing utility to graph the function.  ​   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | a. | ​ | b. |  | |  | c. | ​ | d. | ​ | |  | e. |  |  |  |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *REFERENCES:* | 2.7.115 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:18 PM | | *DATE MODIFIED:* | 10/22/2014 8:49 AM | |

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| 43. Find the inverse function of  *f.*   |  |  |  | | --- | --- | --- | |  | a. |  | |  | b. |  | |  | c. |  | |  | d. |  | |  | e. |  |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *REFERENCES:* | 2.7.14 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:18 PM | | *DATE MODIFIED:* | 10/22/2014 8:50 AM | |

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| 44. Graph the given function.  *f*(*x*) = (*x* – 3)2   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | a. |  | b. |  | |  | c. |  | d. |  | |  | e. |  |  |  |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *REFERENCES:* | 2.7.15a | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:18 PM | | *DATE MODIFIED:* | 10/2/2014 10:15 AM | |

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| 45. Find the inverse function of  *f*.​  ​  , *x* ≠  ​   |  |  |  | | --- | --- | --- | |  | a. | ​, *x* ≠ | |  | b. | ​, *x* ≠ | |  | c. | ​, *x* ≠ –4 | |  | d. | ​, *x* ≠ | |  | e. | ​, *x* ≠ |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 10/2/2014 11:48 AM | | *DATE MODIFIED:* | 10/22/2014 8:54 AM | |

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| 46. Determine whether the function has an inverse function. If it does, find the inverse function.  *f(x*) = *x*2 + 5   |  |  |  | | --- | --- | --- | |  | a. |  | |  | b. |  | |  | c. |  | |  | d. |  | |  | e. | No inverse function exists. |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *REFERENCES:* | 2.7.63 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:18 PM | | *DATE MODIFIED:* | 5/18/2015 4:09 AM | |

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| 47. Determine whether the function has an inverse function. If it does, find the inverse function.   |  |  |  | | --- | --- | --- | |  | a. |  | |  | b. | ​ | |  | c. |  | |  | d. |  | |  | e. | No inverse function exists. |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *REFERENCES:* | 2.7.72 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:18 PM | | *DATE MODIFIED:* | 10/3/2014 2:49 AM | |

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| 48. ​Use the functions given by  and g(*x*) = *x*3 to find the indicated value.  (*f* º *g*)–1(5)   |  |  |  | | --- | --- | --- | |  | a. | ​ | |  | b. | ​ | |  | c. | ​ | |  | d. | ​ | |  | e. | ​Undefined |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 10/3/2014 3:49 AM | | *DATE MODIFIED:* | 10/22/2014 9:10 AM | |

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| 49. Determine algebraically whether *f* and *g* are inverse functions.  *f*(*x*) = 5*x* - 3   |  |  |  | | --- | --- | --- | |  | a. | Yes, *f* and *g* are inverse functions. | |  | b. | No, *f* and *g* are not inverse functions. |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *REFERENCES:* | 2.7.24a | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:18 PM | | *DATE MODIFIED:* | 10/3/2014 4:49 AM | |

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| 50. Determine algebraically whether *f* and *g* are inverse functions.  *g*(*x*) = *x*2 - 6, *x* ≥ 0   |  |  |  | | --- | --- | --- | |  | a. | Yes, *f* and *g* are inverse functions. | |  | b. | No, *f* and *g* are not inverse functions. |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *REFERENCES:* | 2.7.29a | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:18 PM | | *DATE MODIFIED:* | 5/18/2015 4:15 AM | |

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| 51. Find the inverse of the one-to-one function.  ​  *y* = 6*x*  ​  *f*–1(*x*) = \_\_\_\_\_\_\_\_\_\_   |  |  | | --- | --- | | *ANSWER:* |  | | *POINTS:* | 1 | | *QUESTION TYPE:* | Subjective Short Answer | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:18 PM | | *DATE MODIFIED:* | 10/22/2014 9:14 AM | |

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| 52. Find the inverse of the one-to-one function.  ​  ​  *f*–1(*x*) = \_\_\_\_\_\_\_\_\_\_   |  |  | | --- | --- | | *ANSWER:* |  | | *POINTS:* | 1 | | *QUESTION TYPE:* | Subjective Short Answer | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:18 PM | | *DATE MODIFIED:* | 10/22/2014 9:16 AM | |

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| 53. Find the inverse of the one-to-one function.  ​  *y* = 5*x* + 4  ​  *f*–1(*x*) = \_\_\_\_\_\_\_\_\_\_   |  |  | | --- | --- | | *ANSWER:* |  | | *POINTS:* | 1 | | *QUESTION TYPE:* | Subjective Short Answer | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:18 PM | | *DATE MODIFIED:* | 10/22/2014 9:19 AM | |

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| 54. Show algebraically that  *f* and *g* are inverse functions.  *f*(*x*) = 9*x* + 9   |  |  | | --- | --- | | *ANSWER:* |  | | *POINTS:* | 1 | | *REFERENCES:* | 58 | | *QUESTION TYPE:* | Subjective Short Answer | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:18 PM | | *DATE MODIFIED:* | 10/3/2014 6:36 AM | |

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| 55. Show algebraically that  *f* and *g* are inverse functions.  , *x* ≥ 8                      *g*(*x*) = *x*2 + 8, *x* ≥ 0   |  |  | | --- | --- | | *ANSWER:* |  | | *POINTS:* | 1 | | *REFERENCES:* | 59 | | *QUESTION TYPE:* | Subjective Short Answer | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:18 PM | | *DATE MODIFIED:* | 10/3/2014 6:41 AM | |

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| 56. Determine whether the function is one-to- one.  ​  *y* = 3*x*  ​   |  |  |  | | --- | --- | --- | |  | a. | No, it isn't one-to-one. | |  | b. | Yes, it is one-to-one. |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:18 PM | | *DATE MODIFIED:* | 10/3/2014 6:42 AM | |

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| 57. Determine whether the function is one-to-one.  ​  *y* = (*x* – 5)2; *x* ≥ 5  ​   |  |  |  | | --- | --- | --- | |  | a. | No, it isn't one-to-one. | |  | b. | Yes, it is one-to-one. |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:18 PM | | *DATE MODIFIED:* | 10/3/2014 6:44 AM | |

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| 58. Find the inverse of the one-to-one function.  ​  *y* = 5*x* + 9  ​   |  |  |  | | --- | --- | --- | |  | a. |  | |  | b. |  | |  | c. |  | |  | d. |  | |  | e. | none of the above |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:18 PM | | *DATE MODIFIED:* | 10/22/2014 9:24 AM | |

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| 59. Find the inverse of the one-to-one function.  ​  *y* = 3*x*  ​   |  |  |  | | --- | --- | --- | |  | a. |  | |  | b. | *f*–1(*x*) = 3*x* | |  | c. |  | |  | d. |  | |  | e. | *f*–1(*x*) = 9*x* |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:18 PM | | *DATE MODIFIED:* | 5/18/2015 4:12 AM | |

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| 60. Find the inverse function of  *f.*  *f*(*x*) = *x*3  - 4   |  |  |  | | --- | --- | --- | |  | a. |  | |  | b. |  | |  | c. |  | |  | d. |  | |  | e. |  |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *REFERENCES:* | 60 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:18 PM | | *DATE MODIFIED:* | 10/22/2014 9:28 AM | |

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| 61. The function *f*(*x*) = *x*2 – 2 is one-to-one on the domain (*x* ≤ 0) . Find *f* –1(*x*).  ​   |  |  |  | | --- | --- | --- | |  | a. |  | |  | b. |  | |  | c. |  | |  | d. |  | |  | e. | *f* –1(*x*) = *x*2 + 2 |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:18 PM | | *DATE MODIFIED:* | 10/3/2014 8:08 AM | |

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| 62. Find the inverse of the one-to-one function.  ​  ​   |  |  |  | | --- | --- | --- | |  | a. |  | |  | b. |  | |  | c. |  | |  | d. |  | |  | e. | inverse does not exist |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multi-Mode (Multiple choice) | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 6/10/2014 4:18 PM | | *DATE MODIFIED:* | 10/3/2014 8:18 AM | |