|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1. Determine whether the value of *x* = 0 is a solution of the equation.​​

|  |  |  |
| --- | --- | --- |
|   | a.  | Yes |
|   | b.  | No |

|  |  |
| --- | --- |
| *ANSWER:* | b |
| *POINTS:* | 1 |
| *REFERENCES:* | 1.2.7 |
| *QUESTION TYPE:* | Multi-Mode (Multiple choice) |
| *HAS VARIABLES:* | True |
| *DATE CREATED:* | 6/10/2014 4:15 PM |
| *DATE MODIFIED:* | 9/18/2014 9:13 AM |

 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 2. Determine whether the value of *x* = –1 is a solution of the equation.​​

|  |  |  |
| --- | --- | --- |
|   | a.  | No |
|   | b.  | Yes |

|  |  |
| --- | --- |
| *ANSWER:* | a |
| *POINTS:* | 1 |
| *REFERENCES:* | 1.2.8 |
| *QUESTION TYPE:* | Multi-Mode (Multiple choice) |
| *HAS VARIABLES:* | True |
| *DATE CREATED:* | 6/10/2014 4:15 PM |
| *DATE MODIFIED:* | 9/18/2014 9:15 AM |

 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 3. Determine whether the value of *x* = –2 is a solution of the equation.​​

|  |  |  |
| --- | --- | --- |
|   | a.  | Yes |
|   | b.  | No |

|  |  |
| --- | --- |
| *ANSWER:* | a |
| *POINTS:* | 1 |
| *REFERENCES:* | 1.2.10 |
| *QUESTION TYPE:* | Multi-Mode (Multiple choice) |
| *HAS VARIABLES:* | True |
| *DATE CREATED:* | 6/10/2014 4:15 PM |
| *DATE MODIFIED:* | 9/18/2014 9:36 AM |

 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 4. Determine whether the value of *x* = 1 is a solution of the equation.​​

|  |  |  |
| --- | --- | --- |
|   | a.  | No |
|   | b.  | Yes |

|  |  |
| --- | --- |
| *ANSWER:* | b |
| *POINTS:* | 1 |
| *REFERENCES:* | 1.2.12 |
| *QUESTION TYPE:* | Multi-Mode (Multiple choice) |
| *HAS VARIABLES:* | True |
| *DATE CREATED:* | 6/10/2014 4:15 PM |
| *DATE MODIFIED:* | 9/18/2014 9:44 AM |

 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 5. Determine whether the value of *x* = 5 is a solution of the equation.​​

|  |  |  |
| --- | --- | --- |
|   | a.  | No |
|   | b.  | Yes |

|  |  |
| --- | --- |
| *ANSWER:* | a |
| *POINTS:* | 1 |
| *REFERENCES:* | 1.2.13 |
| *QUESTION TYPE:* | Multi-Mode (Multiple choice) |
| *HAS VARIABLES:* | True |
| *DATE CREATED:* | 6/10/2014 4:15 PM |
| *DATE MODIFIED:* | 9/18/2014 9:49 AM |

 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 6. Determine whether the value of *x* = 12 is a solution of the equation.​​

|  |  |  |
| --- | --- | --- |
|   | a.  | No |
|   | b.  | Yes |

|  |  |
| --- | --- |
| *ANSWER:* | b |
| *POINTS:* | 1 |
| *REFERENCES:* | 1.2.14 |
| *QUESTION TYPE:* | Multi-Mode (Multiple choice) |
| *HAS VARIABLES:* | True |
| *DATE CREATED:* | 6/10/2014 4:15 PM |
| *DATE MODIFIED:* | 9/18/2014 9:51 AM |

 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 7. Determine whether the value of *x* = 9 is a solution of the equation.​​

|  |  |  |
| --- | --- | --- |
|   | a.  | No |
|   | b.  | Yes |

|  |  |
| --- | --- |
| *ANSWER:* | b |
| *POINTS:* | 1 |
| *REFERENCES:* | 1.2.15 |
| *QUESTION TYPE:* | Multi-Mode (Multiple choice) |
| *HAS VARIABLES:* | True |
| *DATE CREATED:* | 6/10/2014 4:15 PM |
| *DATE MODIFIED:* | 9/18/2014 9:52 AM |

 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8. Determine whether the equation –6(*x* + 3) = –6*x*  - 18 is an identity or a conditional equation. If conditional, indicate the condition.​

|  |  |  |
| --- | --- | --- |
|   | a.  | conditional with *x* = –3 satisfying the equation |
|   | b.  | conditional with *x* = 0 satisfying the equation |
|   | c.  | identity |
|   | d.  | conditional with *x* = 3 satisfying the equation |
|   | e.  | conditional with no solution |

|  |  |
| --- | --- |
| *ANSWER:* | c |
| *POINTS:* | 1 |
| *REFERENCES:* | 1.2.19 |
| *QUESTION TYPE:* | Multi-Mode (Multiple choice) |
| *HAS VARIABLES:* | True |
| *DATE CREATED:* | 6/10/2014 4:15 PM |
| *DATE MODIFIED:* | 5/11/2015 6:00 AM |

 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 9. Determine whether the equation 2(*x* - 1) = 2*x* + 3 is an identity or a conditional equation. If conditional, indicate the condition.​

|  |  |  |
| --- | --- | --- |
|   | a.  | conditional with *x* = 0 satisfying the equation |
|   | b.  | conditional with  satisfying the equation |
|   | c.  | identity |
|   | d.  | conditional with no solution |
|   | e.  | conditional with  satisfying the equation |

|  |  |
| --- | --- |
| *ANSWER:* | d |
| *POINTS:* | 1 |
| *REFERENCES:* | 1.2.21 |
| *QUESTION TYPE:* | Multi-Mode (Multiple choice) |
| *HAS VARIABLES:* | True |
| *DATE CREATED:* | 6/10/2014 4:15 PM |
| *DATE MODIFIED:* | 5/11/2015 5:54 AM |

 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 10. Determine whether the equation 6(*x* + 5) - 9*x* = 6*x* + 5 is an identity or a conditional equation. If conditional, indicate the condition.​

|  |  |  |
| --- | --- | --- |
|   | a.  | conditional with  satisfying the equation |
|   | b.  | conditional with x = 0 satisfying the equation |
|   | c.  | conditional with  satisfying the equation |
|   | d.  | conditional with no solution |
|   | e.  | identity |

|  |  |
| --- | --- |
| *ANSWER:* | a |
| *POINTS:* | 1 |
| *REFERENCES:* | 1.2.24 |
| *QUESTION TYPE:* | Multi-Mode (Multiple choice) |
| *HAS VARIABLES:* | True |
| *DATE CREATED:* | 6/10/2014 4:15 PM |
| *DATE MODIFIED:* | 9/19/2014 3:26 AM |

 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 11. Justify each step of the solution.​​

|  |  |  |
| --- | --- | --- |
|   | a.  | Original equation.Divide each side by 8.Simplify.Subtract 64 from each side.Simplify. |
|   | b.  | Original equation.Subtract 64 from each side.Simplify.Divide each side by 8.Simplify. |
|   | c.  | Simplify.Original equation.Subtract 64 from each side.Divide each side by 8.Simplify. |
|   | d.  | Original equation.Subtract 64 from each side.Divide each side by 8.Simplify.Simplify. |
|   | e.  | Original equation.Simplify.Subtract 64 from each side.Divide each side by 8.Simplify. |

|  |  |
| --- | --- |
| *ANSWER:* | b |
| *POINTS:* | 1 |
| *REFERENCES:* | 1.2.31 |
| *QUESTION TYPE:* | Multi-Mode (Multiple choice) |
| *HAS VARIABLES:* | True |
| *DATE CREATED:* | 6/10/2014 4:15 PM |
| *DATE MODIFIED:* | 9/19/2014 3:59 AM |

 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 12. Justify each step of the solution.​​

|  |  |  |
| --- | --- | --- |
|   | a.  | Original equation.Simplify.Simplify.Add 70 to each side.Remove parentheses.Divide each side by 9.Simplify. |
|   | b.  | Original equation.Remove parentheses.Add 70 to each side.Divide each side by 9.Simplify.Simplify.Simplify. |
|   | c.  | Original equation.Remove parentheses.Simplify.Add 70 to each side.Simplify.Divide each side by 9.Simplify. |
|   | d.  | Original equation.Divide each side by 9.Simplify.Add 70 to each side.Simplify.Remove parentheses.Simplify. |
|   | e.  | Simplify.Original equation.Remove parentheses.Add 70 to each side.Simplify.Divide each side by 9.Simplify. |

|  |  |
| --- | --- |
| *ANSWER:* | c |
| *POINTS:* | 1 |
| *REFERENCES:* | 1.2.32 |
| *QUESTION TYPE:* | Multi-Mode (Multiple choice) |
| *HAS VARIABLES:* | True |
| *DATE CREATED:* | 6/10/2014 4:15 PM |
| *DATE MODIFIED:* | 5/11/2015 6:05 AM |

 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 13. Solve the equation.​​

|  |  |  |
| --- | --- | --- |
|   | a.  | *x* = 4​ |
|   | b.  | *x* = 5​ |
|   | c.  | *x* = 21​ |
|   | d.  | *x* = 22​ |
|   | e.  | *x* = 20​ |

|  |  |
| --- | --- |
| *ANSWER:* | a |
| *POINTS:* | 1 |
| *REFERENCES:* | 1.2.33 |
| *QUESTION TYPE:* | Multi-Mode (Multiple choice) |
| *HAS VARIABLES:* | True |
| *DATE CREATED:* | 6/10/2014 4:15 PM |
| *DATE MODIFIED:* | 5/11/2015 6:08 AM |

 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 14. Solve the equation.​–1 - 8*x* = 2​

|  |  |  |
| --- | --- | --- |
|   | a.  |  |
|   | b.  | ​ |
|   | c.  | ​ |
|   | d.  | ​ |
|   | e.  | ​ |

|  |  |
| --- | --- |
| *ANSWER:* | c |
| *POINTS:* | 1 |
| *REFERENCES:* | 1.2.34 |
| *QUESTION TYPE:* | Multi-Mode (Multiple choice) |
| *HAS VARIABLES:* | True |
| *DATE CREATED:* | 6/10/2014 4:15 PM |
| *DATE MODIFIED:* | 5/11/2015 6:10 AM |

 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 15. Solve the equation.​​

|  |  |  |
| --- | --- | --- |
|   | a.  | *x =*3 |
|   | b.  | *x =*–5 |
|   | c.  | *x =*–2 |
|   | d.  | *x =*1 |
|   | e.  | *x =*–4 |

|  |  |
| --- | --- |
| *ANSWER:* | c |
| *POINTS:* | 1 |
| *REFERENCES:* | 1.2.35 |
| *QUESTION TYPE:* | Multi-Mode (Multiple choice) |
| *HAS VARIABLES:* | True |
| *DATE CREATED:* | 6/10/2014 4:15 PM |
| *DATE MODIFIED:* | 5/11/2015 6:12 AM |

 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 16. Solve the equation.​​

|  |  |  |
| --- | --- | --- |
|   | a.  | *y =* |
|   | b.  | *y =*​ |
|   | c.  | ​*y =*​ |
|   | d.  | *y =*​ |
|   | e.  | *y =*​ |

|  |  |
| --- | --- |
| *ANSWER:* | a |
| *POINTS:* | 1 |
| *REFERENCES:* | 1.2.40 |
| *QUESTION TYPE:* | Multi-Mode (Multiple choice) |
| *HAS VARIABLES:* | True |
| *DATE CREATED:* | 6/10/2014 4:15 PM |
| *DATE MODIFIED:* | 5/11/2015 6:16 AM |

 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 17. Solve the equation.​​

|  |  |  |
| --- | --- | --- |
|   | a.  | *​x =*6 |
|   | b.  | *x =*​–11 |
|   | c.  | ​*x =*–6 |
|   | d.  | *x =*​11 |
|   | e.  | No solution |

|  |  |
| --- | --- |
| *ANSWER:* | e |
| *POINTS:* | 1 |
| *REFERENCES:* | 1.2.41 |
| *QUESTION TYPE:* | Multi-Mode (Multiple choice) |
| *HAS VARIABLES:* | True |
| *DATE CREATED:* | 6/10/2014 4:15 PM |
| *DATE MODIFIED:* | 5/11/2015 6:17 AM |

 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 18. Solve the equation.​​

|  |  |  |
| --- | --- | --- |
|   | a.  | *x =*8 |
|   | b.  | *x =*​57 |
|   | c.  | ​*x =*–8 |
|   | d.  | ​*x =*–​57 |
|   | e.  | All real numbers |

|  |  |
| --- | --- |
| *ANSWER:* | e |
| *POINTS:* | 1 |
| *REFERENCES:* | 1.2.42 |
| *QUESTION TYPE:* | Multi-Mode (Multiple choice) |
| *HAS VARIABLES:* | True |
| *DATE CREATED:* | 6/10/2014 4:15 PM |
| *DATE MODIFIED:* | 5/11/2015 6:18 AM |

 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 19. Solve the equation.​–7(*x* + 9) + 9 = 6(*x* + 6)​

|  |  |  |
| --- | --- | --- |
|   | a.  |  |
|   | b.  | ​ |
|   | c.  | ​ |
|   | d.  | ​ |
|   | e.  | ​ |

|  |  |
| --- | --- |
| *ANSWER:* | e |
| *POINTS:* | 1 |
| *REFERENCES:* | 1.2.43 |
| *QUESTION TYPE:* | Multi-Mode (Multiple choice) |
| *HAS VARIABLES:* | True |
| *DATE CREATED:* | 6/10/2014 4:15 PM |
| *DATE MODIFIED:* | 5/11/2015 6:21 AM |

 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 20. Solve the equation.​​

|  |  |  |
| --- | --- | --- |
|   | a.  | *​x =*8 |
|   | b.  | *x =*8 |
|   | c.  | *x =*16 |
|   | d.  | ​*x =*12 |
|   | e.  | ​*x =*96 |

|  |  |
| --- | --- |
| *ANSWER:* | b |
| *POINTS:* | 1 |
| *REFERENCES:* | 1.2.44 |
| *QUESTION TYPE:* | Multi-Mode (Multiple choice) |
| *HAS VARIABLES:* | True |
| *DATE CREATED:* | 6/10/2014 4:15 PM |
| *DATE MODIFIED:* | 5/11/2015 6:24 AM |

 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 21. Solve the equation.​

|  |  |  |
| --- | --- | --- |
|   | a.  |  |
|   | b.  | ​ |
|   | c.  | ​ |
|   | d.  | ​ |
|   | e.  | ​ |

|  |  |
| --- | --- |
| *ANSWER:* | b |
| *POINTS:* | 1 |
| *REFERENCES:* | 1.2.45 |
| *QUESTION TYPE:* | Multi-Mode (Multiple choice) |
| *HAS VARIABLES:* | True |
| *DATE CREATED:* | 6/10/2014 4:15 PM |
| *DATE MODIFIED:* | 5/11/2015 6:45 AM |

 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 22. Solve the equation.​​

|  |  |  |
| --- | --- | --- |
|   | a.  | *​x =*5 |
|   | b.  | *x =*3 |
|   | c.  | ​*x =*6 |
|   | d.  | *x =*8 |
|   | e.  | *x =*7 |

|  |  |
| --- | --- |
| *ANSWER:* | c |
| *POINTS:* | 1 |
| *REFERENCES:* | 1.2.46 |
| *QUESTION TYPE:* | Multi-Mode (Multiple choice) |
| *HAS VARIABLES:* | True |
| *DATE CREATED:* | 6/10/2014 4:15 PM |
| *DATE MODIFIED:* | 5/11/2015 6:45 AM |

 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 23. Solve the equation.​​

|  |  |  |
| --- | --- | --- |
|   | a.  | *x =*3 |
|   | b.  | *x =*2 |
|   | c.  | *x =*1 |
|   | d.  | *x =*4 |
|   | e.  | *x =*–2 |

|  |  |
| --- | --- |
| *ANSWER:* | b |
| *POINTS:* | 1 |
| *REFERENCES:* | 1.2.47 |
| *QUESTION TYPE:* | Multi-Mode (Multiple choice) |
| *HAS VARIABLES:* | True |
| *DATE CREATED:* | 6/10/2014 4:15 PM |
| *DATE MODIFIED:* | 5/11/2015 6:46 AM |

 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 24. Solve the equation.​​

|  |  |  |
| --- | --- | --- |
|   | a.  | *x =*3 |
|   | b.  | *x =*2.25 |
|   | c.  | *x =*9 |
|   | d.  | *x =*4.5 |
|   | e.  | *x =*1.125 |

|  |  |
| --- | --- |
| *ANSWER:* | b |
| *POINTS:* | 1 |
| *REFERENCES:* | 1.2.48 |
| *QUESTION TYPE:* | Multi-Mode (Multiple choice) |
| *HAS VARIABLES:* | True |
| *DATE CREATED:* | 6/10/2014 4:15 PM |
| *DATE MODIFIED:* | 5/11/2015 6:47 AM |

 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 25. Solve the equation.​​

|  |  |  |
| --- | --- | --- |
|   | a.  | *x =*9 |
|   | b.  | ​*x =*10 |
|   | c.  | ​*x =*8 |
|   | d.  | *x =*6 |
|   | e.  | *x =*7 |

|  |  |
| --- | --- |
| *ANSWER:* | d |
| *POINTS:* | 1 |
| *REFERENCES:* | 1.2.50 |
| *QUESTION TYPE:* | Multi-Mode (Multiple choice) |
| *HAS VARIABLES:* | True |
| *DATE CREATED:* | 6/10/2014 4:15 PM |
| *DATE MODIFIED:* | 5/11/2015 6:48 AM |

 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 26. Solve the equation.​​

|  |  |  |
| --- | --- | --- |
|   | a.  | *​x =*4 |
|   | b.  | *x =*​5 |
|   | c.  | ​*x =*6 |
|   | d.  | ​*x =*7 |
|   | e.  | ​*x =*3 |

|  |  |
| --- | --- |
| *ANSWER:* | e |
| *POINTS:* | 1 |
| *REFERENCES:* | 1.2.51 |
| *QUESTION TYPE:* | Multi-Mode (Multiple choice) |
| *HAS VARIABLES:* | True |
| *DATE CREATED:* | 6/10/2014 4:15 PM |
| *DATE MODIFIED:* | 5/11/2015 6:56 AM |

 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 27. Solve the equation.​​

|  |  |  |
| --- | --- | --- |
|   | a.  | *​x =*​9 |
|   | b.  | *x =*​​8 |
|   | c.  | ​*x =*​–8 |
|   | d.  | ​*x =*​–9 |
|   | e.  | No solution. |

|  |  |
| --- | --- |
| *ANSWER:* | e |
| *POINTS:* | 1 |
| *REFERENCES:* | 1.2.53 |
| *QUESTION TYPE:* | Multi-Mode (Multiple choice) |
| *HAS VARIABLES:* | True |
| *DATE CREATED:* | 6/10/2014 4:15 PM |
| *DATE MODIFIED:* | 5/11/2015 6:58 AM |

 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 28. Solve the equation.​​

|  |  |  |
| --- | --- | --- |
|   | a.  | ​*x =*​9 |
|   | b.  | ​*x =*​5 |
|   | c.  | ​*x =*​8 |
|   | d.  | ​*x =*​20 |
|   | e.  | No solution. |

|  |  |
| --- | --- |
| *ANSWER:* | e |
| *POINTS:* | 1 |
| *REFERENCES:* | 1.2.54 |
| *QUESTION TYPE:* | Multi-Mode (Multiple choice) |
| *HAS VARIABLES:* | True |
| *DATE CREATED:* | 6/10/2014 4:15 PM |
| *DATE MODIFIED:* | 5/11/2015 6:59 AM |

 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 29. Solve the equation.​​

|  |  |  |
| --- | --- | --- |
|   | a.  |  |
|   | b.  | ​ |
|   | c.  | ​ |
|   | d.  | ​ |
|   | e.  | ​ |

|  |  |
| --- | --- |
| *ANSWER:* | d |
| *POINTS:* | 1 |
| *REFERENCES:* | 1.2.55 |
| *QUESTION TYPE:* | Multi-Mode (Multiple choice) |
| *HAS VARIABLES:* | True |
| *DATE CREATED:* | 6/10/2014 4:15 PM |
| *DATE MODIFIED:* | 5/11/2015 7:00 AM |

 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 30. Solve the equation.​ ​

|  |  |  |
| --- | --- | --- |
|   | a.  |  |
|   | b.  | ​ |
|   | c.  | ​ |
|   | d.  | ​ |
|   | e.  | ​ |

|  |  |
| --- | --- |
| *ANSWER:* | a |
| *POINTS:* | 1 |
| *REFERENCES:* | 1.2.56 |
| *QUESTION TYPE:* | Multi-Mode (Multiple choice) |
| *HAS VARIABLES:* | True |
| *DATE CREATED:* | 6/10/2014 4:15 PM |
| *DATE MODIFIED:* | 5/11/2015 7:02 AM |

 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 31. Solve the equation.​​

|  |  |  |
| --- | --- | --- |
|   | a.  | *​x =*4 |
|   | b.  | *x =*9 |
|   | c.  | ​*x =*20 |
|   | d.  | ​*x =*16 |
|   | e.  | ​*x =*36 |

|  |  |
| --- | --- |
| *ANSWER:* | a |
| *POINTS:* | 1 |
| *REFERENCES:* | 1.2.57 |
| *QUESTION TYPE:* | Multi-Mode (Multiple choice) |
| *HAS VARIABLES:* | True |
| *DATE CREATED:* | 6/10/2014 4:15 PM |
| *DATE MODIFIED:* | 5/11/2015 7:03 AM |

 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 32. Solve the equation.​​​

|  |  |  |
| --- | --- | --- |
|   | a.  | *x =*8 |
|   | b.  | *x =* |
|   | c.  | *x =* |
|   | d.  | ​*x =*12 |
|   | e.  | ​*x =*23 |

|  |  |
| --- | --- |
| *ANSWER:* | b |
| *POINTS:* | 1 |
| *REFERENCES:* | 1.2.60 |
| *QUESTION TYPE:* | Multi-Mode (Multiple choice) |
| *HAS VARIABLES:* | True |
| *DATE CREATED:* | 6/10/2014 4:15 PM |
| *DATE MODIFIED:* | 5/11/2015 7:05 AM |

 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 33. Solve the equation.​​

|  |  |  |
| --- | --- | --- |
|   | a.  | *x =*8 |
|   | b.  | *x =*​–2 |
|   | c.  | ​*x =*–15 |
|   | d.  | ​*x =*11 |
|   | e.  | No solution. |

|  |  |
| --- | --- |
| *ANSWER:* | e |
| *POINTS:* | 1 |
| *REFERENCES:* | 1.2.63 |
| *QUESTION TYPE:* | Multi-Mode (Multiple choice) |
| *HAS VARIABLES:* | True |
| *DATE CREATED:* | 6/10/2014 4:15 PM |
| *DATE MODIFIED:* | 5/11/2015 7:07 AM |

 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 34. Solve the equation.​​

|  |  |  |
| --- | --- | --- |
|   | a.  | *x =*8 |
|   | b.  | ​*x =*4 |
|   | c.  | ​*x =* |
|   | d.  | ​*x =*10 |
|   | e.  | No solution. |

|  |  |
| --- | --- |
| *ANSWER:* | e |
| *POINTS:* | 1 |
| *REFERENCES:* | 1.2.65 |
| *QUESTION TYPE:* | Multi-Mode (Multiple choice) |
| *HAS VARIABLES:* | True |
| *DATE CREATED:* | 6/10/2014 4:15 PM |
| *DATE MODIFIED:* | 5/11/2015 7:10 AM |

 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 35. Solve the equation.

|  |  |  |
| --- | --- | --- |
|   | a.  |  |
|   | b.  | ​ |
|   | c.  | ​ |
|   | d.  | ​ |
|   | e.  | ​ |

|  |  |
| --- | --- |
| *ANSWER:* | c |
| *POINTS:* | 1 |
| *REFERENCES:* | 1.2.66 |
| *QUESTION TYPE:* | Multi-Mode (Multiple choice) |
| *HAS VARIABLES:* | True |
| *DATE CREATED:* | 6/10/2014 4:15 PM |
| *DATE MODIFIED:* | 5/11/2015 7:20 AM |

 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 36. Solve the equation.​​

|  |  |  |
| --- | --- | --- |
|   | a.  | *x =*16 |
|   | b.  | ​*x =*17 |
|   | c.  | ​*x =*15 |
|   | d.  | ​*x =*18 |
|   | e.  | ​*x =*19 |

|  |  |
| --- | --- |
| *ANSWER:* | b |
| *POINTS:* | 1 |
| *REFERENCES:* | 1.2.67 |
| *QUESTION TYPE:* | Multi-Mode (Multiple choice) |
| *HAS VARIABLES:* | True |
| *DATE CREATED:* | 6/10/2014 4:15 PM |
| *DATE MODIFIED:* | 5/11/2015 7:21 AM |

 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 37. Solve the equation.​​

|  |  |  |
| --- | --- | --- |
|   | a.  | *x =*11 |
|   | b.  | *x =*2 |
|   | c.  | ​*x =*6 |
|   | d.  | ​*x =*5 |
|   | e.  | No solution. |

|  |  |
| --- | --- |
| *ANSWER:* | e |
| *POINTS:* | 1 |
| *REFERENCES:* | 1.2.70 |
| *QUESTION TYPE:* | Multi-Mode (Multiple choice) |
| *HAS VARIABLES:* | True |
| *DATE CREATED:* | 6/10/2014 4:15 PM |
| *DATE MODIFIED:* | 5/11/2015 7:22 AM |

 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 38. Solve the equation.​​

|  |  |  |
| --- | --- | --- |
|   | a.  | *x =*5 |
|   | b.  | ​*x =*6 |
|   | c.  | ​*x =*11 |
|   | d.  | *x =*0 |
|   | e.  | No solution. |

|  |  |
| --- | --- |
| *ANSWER:* | d |
| *POINTS:* | 1 |
| *REFERENCES:* | 1.2.71 |
| *QUESTION TYPE:* | Multi-Mode (Multiple choice) |
| *HAS VARIABLES:* | True |
| *DATE CREATED:* | 6/10/2014 4:15 PM |
| *DATE MODIFIED:* | 5/11/2015 7:22 AM |

 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 39. Solve the equation.​

|  |  |  |
| --- | --- | --- |
|   | a.  |  |
|   | b.  | ​ |
|   | c.  | ​ |
|   | d.  | ​ |
|   | e.  | ​ |

|  |  |
| --- | --- |
| *ANSWER:* | d |
| *POINTS:* | 1 |
| *REFERENCES:* | 1.2.72 |
| *QUESTION TYPE:* | Multi-Mode (Multiple choice) |
| *HAS VARIABLES:* | True |
| *DATE CREATED:* | 6/10/2014 4:15 PM |
| *DATE MODIFIED:* | 5/11/2015 7:24 AM |

 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 40. Use a graphing utility to graph the equation and approximate any -intercepts.​​

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|   | a.  | ​​*x* = –5 | b.  |  *x* = 6 |
|   | c.  | ​*x* = 4 | d.  | ​*x* = –6 |
|   | e.  | ​​*x* = –4 |  |  |

|  |  |
| --- | --- |
| *ANSWER:* | b |
| *POINTS:* | 1 |
| *REFERENCES:* | 1.2.75 |
| *QUESTION TYPE:* | Multi-Mode (Multiple choice) |
| *HAS VARIABLES:* | True |
| *DATE CREATED:* | 6/10/2014 4:15 PM |
| *DATE MODIFIED:* | 5/11/2015 7:30 AM |

 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 41. Use a graphing utility to graph the equation and approximate any *x*-intercepts.​​

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|   | a.  |  ​ | b.  | ​​ |
|   | c.  | ​​ | d.  | ​​ |
|   | e.  | ​​ |  |  |

|  |  |
| --- | --- |
| *ANSWER:* | a |
| *POINTS:* | 1 |
| *REFERENCES:* | 1.2.77 |
| *QUESTION TYPE:* | Multi-Mode (Multiple choice) |
| *HAS VARIABLES:* | True |
| *DATE CREATED:* | 6/10/2014 4:15 PM |
| *DATE MODIFIED:* | 5/11/2015 7:40 AM |

 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 42. Use a graphing utility to graph the equation and approximate any *x*-intercepts.​​

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|   | a.  |   ​ | b.  | ​​ |
|   | c.  | ​​ | d.  | ​​ |
|   | e.  | ​​ |  |  |

|  |  |
| --- | --- |
| *ANSWER:* | d |
| *POINTS:* | 1 |
| *REFERENCES:* | 1.2.78 |
| *QUESTION TYPE:* | Multi-Mode (Multiple choice) |
| *HAS VARIABLES:* | True |
| *DATE CREATED:* | 6/10/2014 4:15 PM |
| *DATE MODIFIED:* | 5/11/2015 7:46 AM |

 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 43. Find the *x*- and *y*-intercepts of the graph of the equation algebraically.​

|  |  |  |
| --- | --- | --- |
|   | a.  | *x*-intercept: (1, 0)*y*-intercept: (0, –3) |
|   | b.  | *x*-intercept: (2, 0)*y*-intercept: (0, –3) |
|   | c.  | *x*-intercept: (-2, 0)*y*-intercept: (0, –3) |
|   | d.  | *x*-intercept: (2, 0)*y*-intercept: (0, –1) |
|   | e.  | *x*-intercept: (1, 0)*y*-intercept: (0, –1) |

|  |  |
| --- | --- |
| *ANSWER:* | e |
| *POINTS:* | 1 |
| *REFERENCES:* | 1.2.84 |
| *QUESTION TYPE:* | Multi-Mode (Multiple choice) |
| *HAS VARIABLES:* | True |
| *DATE CREATED:* | 6/10/2014 4:15 PM |
| *DATE MODIFIED:* | 5/11/2015 7:46 AM |

 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 44. A student states that the equation​​is an identity. Describe and correct student’s error.​

|  |  |  |
| --- | --- | --- |
|   | a.  | The negative sign was not distributed to the *x*. |
|   | b.  | The negative sign was not distributed to the 4*x*. |
|   | c.  | The negative sign was not distributed to the 6. |
|   | d.  | The negative sign was not distributed to the –4. |
|   | e.  | The negative sign was not distributed to the –24. |

|  |  |
| --- | --- |
| *ANSWER:* | c |
| *POINTS:* | 1 |
| *REFERENCES:* | 1.2.92 |
| *QUESTION TYPE:* | Multi-Mode (Multiple choice) |
| *HAS VARIABLES:* | True |
| *DATE CREATED:* | 6/10/2014 4:15 PM |
| *DATE MODIFIED:* | 11/14/2014 5:40 AM |

 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 45. Solve the equation for *x*. (Round your answer to three decimal places.)​​

|  |  |  |
| --- | --- | --- |
|   | a.  | *​x =*0.72 |
|   | b.  | ​*x =*0.26 |
|   | c.  | ​*x =*280 |
|   | d.  | ​*x =*189.565 |
|   | e.  | ​*x =*0.46 |

|  |  |
| --- | --- |
| *ANSWER:* | d |
| *POINTS:* | 1 |
| *REFERENCES:* | 1.2.93 |
| *QUESTION TYPE:* | Multi-Mode (Multiple choice) |
| *HAS VARIABLES:* | True |
| *DATE CREATED:* | 6/10/2014 4:15 PM |
| *DATE MODIFIED:* | 5/11/2015 7:58 AM |

 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 46. Solve the equation for *x*. (Round your answer to three decimal places.)​​

|  |  |  |
| --- | --- | --- |
|   | a.  | *x =*–0.543 |
|   | b.  | ​*x =*12.618 |
|   | c.  | *x =*–12.618 |
|   | d.  | ​*x =*0.543 |
|   | e.  | ​*x =*23.236 |

|  |  |
| --- | --- |
| *ANSWER:* | a |
| *POINTS:* | 1 |
| *REFERENCES:* | 1.2.96 |
| *QUESTION TYPE:* | Multi-Mode (Multiple choice) |
| *HAS VARIABLES:* | True |
| *DATE CREATED:* | 6/10/2014 4:15 PM |
| *DATE MODIFIED:* | 5/11/2015 7:59 AM |

 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 47. Solve the equation for *x*.​​

|  |  |  |
| --- | --- | --- |
|   | a.  | *x =* |
|   | b.  | ​*x =* |
|   | c.  | ​*x =* |
|   | d.  | ​*x =* |
|   | e.  | ​*x =* |

|  |  |
| --- | --- |
| *ANSWER:* | b |
| *POINTS:* | 1 |
| *REFERENCES:* | 1.2.97 |
| *QUESTION TYPE:* | Multi-Mode (Multiple choice) |
| *HAS VARIABLES:* | True |
| *DATE CREATED:* | 6/10/2014 4:15 PM |
| *DATE MODIFIED:* | 5/11/2015 8:00 AM |

 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 48. Solve the equation for *x*.​​

|  |  |  |
| --- | --- | --- |
|   | a.  | ​*​x =* |
|   | b.  | *x =*​ |
|   | c.  | ​*x =* |
|   | d.  | ​*x =* |
|   | e.  | ​*x =* |

|  |  |
| --- | --- |
| *ANSWER:* | b |
| *POINTS:* | 1 |
| *REFERENCES:* | 1.2.100 |
| *QUESTION TYPE:* | Multi-Mode (Multiple choice) |
| *HAS VARIABLES:* | True |
| *DATE CREATED:* | 6/10/2014 4:15 PM |
| *DATE MODIFIED:* | 5/11/2015 8:01 AM |

 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 49. If  and , then the surface area *S* of the rectangular solid in the figure is . Find the length of the box if the surface area is 232 square centimeters.​

|  |  |  |
| --- | --- | --- |
|   | a.  |  cm |
|   | b.  |  cm |
|   | c.  |  cm |
|   | d.  |  cm |
|   | e.  |  cm |

|  |  |
| --- | --- |
| *ANSWER:* | a |
| *POINTS:* | 1 |
| *REFERENCES:* | 1.2.106 |
| *QUESTION TYPE:* | Multi-Mode (Multiple choice) |
| *HAS VARIABLES:* | True |
| *DATE CREATED:* | 6/10/2014 4:15 PM |
| *DATE MODIFIED:* | 11/14/2014 7:36 AM |

 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 50. Complete the table and use it to find the interval in which the solution of the equation  is located. Explain your reasoning.​​

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  |  -1 |  0  |  1  |  2  |  3  |  4  |
|  |  |  |  |  |  |  |

​​​ -1   0    1    2    3    4  –9.2–5.8–2.414.4 7.8 ​

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  -1  |   0   |   1   |   2   |   3   |   4   |  |
|  | –9.2 | –5.8 | –2.4 | 1 | 4.4 | 7.8  |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|   | a.  | ​

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | -1 | 0 | 1 | 2 | 3 | 4 |
|  | –9.2 | –5.8 | –2.4 | 1 | 4.4 | 7.8 |

​ The expression changes from negative to positive in this interval. |
|   | b.  | ​

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | -1 | 0 | 1 | 2 | 3 | 4 |
|  | 9.2 | 5.8 | 2.4 | 1 | 4.4 | 7.8 |

​ The expression changes from negative to positive in this interval. |
|   | c.  | ​

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | -1 | 0 | 1 | 2 | 3 | 4 |
|  | 9.2 | –5.8 | –2.4 | 1 | 4.4 | 7.8 |

​ The expression changes from negative to positive in this interval. |
|   | d.  | ​

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | -1 | 0 | 1 | 2 | 3 | 4 |
|  | –9.2 | –5.8 | 2.4 | 1 | 4.4 | 7.8 |

​ The expression changes from negative to positive in this interval. |
|   | e.  | ​

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | -1 | 0 | 1 | 2 | 3 | 4 |
|  | –9.2 | 5.8 | –2.4 | 1 | 4.4 | 7.8 |

​ The expression changes from negative to positive in this interval. |

|  |  |
| --- | --- |
| *ANSWER:* | a |
| *POINTS:* | 1 |
| *REFERENCES:* | 1.2.119 |
| *QUESTION TYPE:* | Multi-Mode (Multiple choice) |
| *HAS VARIABLES:* | True |
| *DATE CREATED:* | 6/10/2014 4:15 PM |
| *DATE MODIFIED:* | 5/11/2015 8:02 AM |

 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 51. Determine which of the following values of *x* is a solution to the equation.

|  |  |  |
| --- | --- | --- |
|   | a.  |  |
|   | b.  | ​ |
|   | c.  | ​ |
|   | d.  | ​ |
|   | e.  | ​ |

|  |  |
| --- | --- |
| *ANSWER:* | a |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Medium |
| *REFERENCES:* | 2.1.3a |
| *QUESTION TYPE:* | Multi-Mode (Multiple choice) |
| *HAS VARIABLES:* | True |
| *DATE CREATED:* | 6/10/2014 4:15 PM |
| *DATE MODIFIED:* | 5/11/2015 8:10 AM |

 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 52. Determine which of the following values of *x* is a solution to the equation.​

|  |  |  |
| --- | --- | --- |
|   | a.  | ,  |
|   | b.  |  |
|   | c.  | ,  |
|   | d.  | ,  |
|   | e.  |  |

|  |  |
| --- | --- |
| *ANSWER:* | c |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Medium |
| *REFERENCES:* | 2.1.4c |
| *QUESTION TYPE:* | Multi-Mode (Multiple choice) |
| *HAS VARIABLES:* | True |
| *DATE CREATED:* | 6/10/2014 4:15 PM |
| *DATE MODIFIED:* | 5/11/2015 8:13 AM |

 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 53. Which of the following equations is not a conditional equation?

|  |  |  |
| --- | --- | --- |
|   | a.  |  |
|   | b.  | ​ |
|   | c.  | ​ |
|   | d.  | ​ |
|   | e.  | ​ |

|  |  |
| --- | --- |
| *ANSWER:* | e |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Medium |
| *REFERENCES:* | 2.1.9 |
| *QUESTION TYPE:* | Multi-Mode (Multiple choice) |
| *HAS VARIABLES:* | True |
| *DATE CREATED:* | 6/10/2014 4:15 PM |
| *DATE MODIFIED:* | 5/11/2015 8:13 AM |

 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 54. Which of the following equations is not an identity equation?

|  |  |  |
| --- | --- | --- |
|   | a.  |  |
|   | b.  | ​ |
|   | c.  | ​ |
|   | d.  | ​ |
|   | e.  | ​ |

|  |  |
| --- | --- |
| *ANSWER:* | b |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Medium |
| *REFERENCES:* | 2.1.11 |
| *QUESTION TYPE:* | Multi-Mode (Multiple choice) |
| *HAS VARIABLES:* | True |
| *DATE CREATED:* | 6/10/2014 4:15 PM |
| *DATE MODIFIED:* | 5/11/2015 8:14 AM |

 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 55. Solve:

|  |  |  |
| --- | --- | --- |
|   | a.  | ​ |
|   | b.  | ​ |
|   | c.  | ​ |
|   | d.  | ​ |
|   | e.  | ​ |

|  |  |
| --- | --- |
| *ANSWER:* | e |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Medium |
| *REFERENCES:* | 2.1.22 |
| *QUESTION TYPE:* | Multi-Mode (Multiple choice) |
| *HAS VARIABLES:* | True |
| *DATE CREATED:* | 6/10/2014 4:15 PM |
| *DATE MODIFIED:* | 5/11/2015 8:14 AM |

 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 56. Solve:

|  |  |  |
| --- | --- | --- |
|   | a.  | ​​ |
|   | b.  | ​​ |
|   | c.  | ​​ |
|   | d.  | ​​ |
|   | e.  | ​ |

|  |  |
| --- | --- |
| *ANSWER:* | a |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Medium |
| *REFERENCES:* | 2.1.29 |
| *QUESTION TYPE:* | Multi-Mode (Multiple choice) |
| *HAS VARIABLES:* | True |
| *DATE CREATED:* | 6/10/2014 4:15 PM |
| *DATE MODIFIED:* | 5/11/2015 8:15 AM |

 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 57. Solve:​​​

|  |  |  |
| --- | --- | --- |
|   | a.  | ​ |
|   | b.  | ​ |
|   | c.  | ​ |
|   | d.  | ​ |
|   | e.  | ​ |

|  |  |
| --- | --- |
| *ANSWER:* | a |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Medium |
| *REFERENCES:* | 2.1.35 |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | True |
| *DATE CREATED:* | 11/18/2014 2:58 AM |
| *DATE MODIFIED:* | 5/11/2015 8:16 AM |

 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 58. Solve:

|  |  |  |
| --- | --- | --- |
|   | a.  |  |
|   | b.  | ​ |
|   | c.  | ​ |
|   | d.  | ​ |
|   | e.  | ​ |

|  |  |
| --- | --- |
| *ANSWER:* | d |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Medium |
| *REFERENCES:* | 2.1.39 |
| *QUESTION TYPE:* | Multi-Mode (Multiple choice) |
| *HAS VARIABLES:* | True |
| *DATE CREATED:* | 6/10/2014 4:15 PM |
| *DATE MODIFIED:* | 5/11/2015 8:16 AM |

 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 59. Solve for *x*:

|  |  |  |
| --- | --- | --- |
|   | a.  | ​ |
|   | b.  | ​ |
|   | c.  | ​ |
|   | d.  | ​ |
|   | e.  | ​ |

|  |  |
| --- | --- |
| *ANSWER:* | c |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Medium |
| *REFERENCES:* | 2.1.45 |
| *QUESTION TYPE:* | Multi-Mode (Multiple choice) |
| *HAS VARIABLES:* | True |
| *DATE CREATED:* | 6/10/2014 4:15 PM |
| *DATE MODIFIED:* | 5/11/2015 8:17 AM |

 |