**Unit 7 Practice Test**

**Multiple Choice**

*Identify the choice that best completes the statement or answers the question.*

\_\_\_\_ 1. Identify the vertex of the graph. Tell whether it is a minimum or maximum.



|  |  |  |  |
| --- | --- | --- | --- |
| a. | (–2, 1); minimum | c. | (1, –2); minimum |
| b. | (–2, 1); maximum | d. | (1, –2); maximum |

\_\_\_\_ 2. Which of the quadratic functions has the widest graph?

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| a. |  | b. |  | c. |  | d. |  |

\_\_\_\_ 3. Find the equation of the axis of symmetry and the coordinates of the vertex of the graph of the function.



|  |  |  |  |
| --- | --- | --- | --- |
| a. | ; vertex: | c. | ; vertex: |
| b. | ; vertex: | d. | ; vertex: |

**Write the equation of the axis of symmetry.**

\_\_\_\_ 4. 

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

\_\_\_\_ 5. A ball is thrown into the air with an upward velocity of 36 ft/s. Its height *h* in feet after *t* seconds is given by the function .

**a.** In how many seconds does the ball reach its maximum height? Round to the nearest hundredth if necessary.

**b.** What is the ball’s maximum height?

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| a. | 2.25 s; 8 ft | b. | 1.13 s; 28.25 ft | c. | 1.13 s; 68.75 ft | d. | 1.13 s; 30.5 ft |

**Find the coordinates of the vertex of the graph of the function.**

\_\_\_\_ 6. 

|  |  |  |  |
| --- | --- | --- | --- |
| a. |  | c. |  |
| b. |  | d. |  |

**Solve the equation using the zero-product property.**

\_\_\_\_ 7. 

|  |  |  |  |
| --- | --- | --- | --- |
| a. | *x* = 1 or *x* = | c. | *x* = 1 or *x* = |
| b. | *x* = –1 or *x* = | d. | *x* = –1 or *x* = |

\_\_\_\_ 8. 

|  |  |  |  |
| --- | --- | --- | --- |
| a. | *n* = 0 or *n* = | c. | *n* =  or *n* = |
| b. | *n* =  or *n* = | d. | *n* = 0 or *n* = |

\_\_\_\_ 9. Find the value of *x*. If necessary, round to the nearest tenth.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| a. | 7.9 in. | b. | 15.7 in. | c. | 11.1 in. | d. | 13.4 in. |

**Solve the equation by factoring.**

\_\_\_\_ 10. 

|  |  |  |  |
| --- | --- | --- | --- |
| a. | *z* = 2 or *z* = –9 | c. | *z* = 2 or *z* = 9 |
| b. | *z* = –2 or *z* = –9 | d. | *z* = –2 or *z* = 9 |

\_\_\_\_ 11. 

|  |  |  |  |
| --- | --- | --- | --- |
| a. | *z* = 1 or *z* = –1 | c. | *z* =  or *z* = 1 |
| b. | *z* = 1 or *z* = 1 | d. | *z* =  or *z* = –1 |

\_\_\_\_ 12. The area of a playground is 304 yd2. The width of the playground is 3 yd longer than its length. Find the length and width of the playground.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | length = 19 yd, width = 22 yd | c. | length = 22 yd, width = 19 yd |
| b. | length = 19 yd, width = 16 yd | d. | length = 16 yd, width = 19 yd |

**Use the quadratic formula to solve the equation. If necessary, round to the nearest hundredth.**

\_\_\_\_ 13. 

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| a. | 1.5, –0.33 | b. | 10.67, –9.5 | c. | 3, –0.67 | d. | 0.33, –1.5 |

**Use any method to solve the equation. If necessary, round to the nearest hundredth.**

\_\_\_\_ 14. 

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| a. | 6, –3 | b. | 4.5, –4.5 | c. | 12, –6 | d. | –6, 3 |

\_\_\_\_ 15. 

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| a. | 17.59, –0.8 | b. | 0.8, –8.8 | c. | 50, –42 | d. | 8.8, –0.8 |

\_\_\_\_ 16. 

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| a. | 2.45, –2.45 | b. | 6.16, –6.16 | c. | 0.4, –0.4 | d. | 2.52, –2.52 |

**Find the number of real number solutions for the equation.**

\_\_\_\_ 17. 

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| a. | 1 | b. | 0 | c. | 2 |

**Solve the quadratic equation. Round to the nearest tenth if necessary.**

\_\_\_\_ 18. 

|  |  |  |  |
| --- | --- | --- | --- |
| a. |  | c. |  |
| b. |  | d. |  |

**What is the solution of the proportion?**

\_\_\_\_ 19. 

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| a. |  | b. |  | c. |  | d. |  |

**Write an equation for the line that is parallel to the given line and passes through the given point.**

\_\_\_\_ 20. *y =* *x* – 9; (2, –3)

|  |  |  |  |
| --- | --- | --- | --- |
| a. | *y =* *x* – 11 | c. | *y =* *x* + 11 |
| b. | *y =* *x* | d. | *y =* *x* – 11 |

\_\_\_\_ 21. The table shows the height of an elevator above ground level after a certain amount of time. Model the data with an equation. Let *y* stand for the height of the elevator in feet and let *x* stand for the time in seconds.

|  |  |  |  |
| --- | --- | --- | --- |
| **Time (s)** | | | **Height (ft)** |
| 10 | | | 203 |
| 20 | | | 186 |
| 40 | | | 152 |
| 60 | | | 118 |
| a. |  | | | c. |  |
| b. |  | | | d. |  |

**What is the solution of the system?**

\_\_\_\_ 22. 4*x* + *y* = –17

3*x* – *y* = –18

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| a. | (–4, –1) | b. | (1, 3) | c. | (3, –5) | d. | (–5, 3) |

**What are the solutions of the inequality?**

\_\_\_\_ 23. 6(*b* – 12) > 18

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| a. | *b <* 30 | b. | *b* > 30 | c. | *b* > 15 | d. | *b* > 3 |

**What is the factored form of the following expressions?**

\_\_\_\_ 24. *x*2 + 3*xy* – 70*y*2

|  |  |  |  |
| --- | --- | --- | --- |
| a. | (*x* – 7*y*)(*x* + 10*y*) | c. | (*x* – 7*y*)(*x* – 10*y*) |
| b. | (*x* + 7*y*)(*x* + 10*y*) | d. | (*x* + 7*y*)(*x* – 10*y*) |

**Write an equation of a line with the given slope and *y*-intercept.**

\_\_\_\_ 25. *m* = 3, *b* = 1

|  |  |  |  |
| --- | --- | --- | --- |
| a. | *y* = 3*x* + 1 | c. | *y* = *x* + 3 |
| b. | *y* = –3*x* + 1 | d. | *y* = 3*x* – 1 |

**What is the slope of the line?**

\_\_\_\_ 26. 

|  |  |  |  |
| --- | --- | --- | --- |
| a. | 0 | b. | undefined |

**Simplify the sum.**

\_\_\_\_ 27. (2*u*3 + 3*u*2 + 5) + (8*u*3 – 7*u* + 3)

|  |  |  |  |
| --- | --- | --- | --- |
| a. | 10*u*3 + 3*u*2 – 7*u* + 8 | c. | –6*u*3 + 3*u*2 – 7*u* + 8 |
| b. | 8 – 7*u* + 3*u*2+ 10*u*3 | d. | –6*u*3 – 7*u*2 + 3*u* – 8 |

**What is the factored form of the following expressions?**

\_\_\_\_ 28. *d*2 – 7*d* + 12

|  |  |  |  |
| --- | --- | --- | --- |
| a. | (*d* + 4)(*d* – 3) | c. | (*d* – 4)(*d* + 3) |
| b. | (*d* + 4)(*d* + 3) | d. | (*d* – 4)(*d* – 3) |

**What is the simplified form of the expression?**

\_\_\_\_ 29. 

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| a. |  | b. |  | c. |  | d. |  |

**Simplify the product.**

\_\_\_\_ 30. 2*n*(*n*2 + 3*n* + 4)

|  |  |  |  |
| --- | --- | --- | --- |
| a. | 2*n*3 + 6*n*2 + 8*n* | c. | 2*n*3 + 6*n* + 8 |
| b. | 2*n*3 + 3*n* + 4 | d. | *n*2 + 5*n* + 4 |

**Unit 7 Practice Test**

**Answer Section**

**MULTIPLE CHOICE**

1. ANS: C PTS: 1 DIF: L1 REF: 10-1 Exploring Quadratic Graphs

OBJ: 10-1.1 Graphing y = ax^2

NAT: NAEP A1e | NAEP A2d | CAT5.LV19.54 | IT.LV15.DI | S9.TSK1.PRA | S10.TSK1.PRA | TV.LV19.14 | TV.LV19.52 | TV.LVALG.57 STA: NC 4.02

TOP: 10-1 Example 1

KEY: quadratic function | parabola | maximum | minimum | vertex

MSC: NAEP A1e | NAEP A2d | CAT5.LV19.54 | IT.LV15.DI | S9.TSK1.PRA | S10.TSK1.PRA | TV.LV19.14 | TV.LV19.52 | TV.LVALG.57

2. ANS: C PTS: 1 DIF: L2 REF: 10-1 Exploring Quadratic Graphs

OBJ: 10-1.1 Graphing y = ax^2

NAT: NAEP A1e | NAEP A2d | CAT5.LV19.54 | IT.LV15.DI | S9.TSK1.PRA | S10.TSK1.PRA | TV.LV19.14 | TV.LV19.52 | TV.LVALG.57 STA: NC 4.02

TOP: 10-1 Example 3 KEY: quadratic function | parabola

MSC: NAEP A1e | NAEP A2d | CAT5.LV19.54 | IT.LV15.DI | S9.TSK1.PRA | S10.TSK1.PRA | TV.LV19.14 | TV.LV19.52 | TV.LVALG.57

3. ANS: D PTS: 1 DIF: L1 REF: 10-2 Quadratic Functions

OBJ: 10-2.1 Graphing y = ax^2 + bx + c

NAT: NAEP A1e | CAT5.LV19.54 | CAT5.LV19.55 | IT.LV15.DI | S9.TSK1.PRA | S10.TSK1.PRA | TV.LV19.18 | TV.LV19.52 | TV.LVALG.57 STA: NC 4.02

TOP: 10-2 Example 1 KEY: quadratic function | axis of symmetry | vertex

MSC: NAEP A1e | CAT5.LV19.54 | CAT5.LV19.55 | IT.LV15.DI | S9.TSK1.PRA | S10.TSK1.PRA | TV.LV19.18 | TV.LV19.52 | TV.LVALG.57

4. ANS: A

The axis of symmetry for  is . In this case *x* = .

|  |  |
| --- | --- |
|  | **Feedback** |
| **A** | Correct! |
| **B** | Don't use the constant. |
| **C** | Multiply by –1. |
| **D** | Multiply 2 times the denominator. |

PTS: 1 DIF: Average REF: Lesson 9-1

OBJ: 9-1.2 Find the equation of the axis of symmetry. NAT: NA 2 | NA 8 | NA 9 | NA 10 | NA 6

TOP: Find the equation of the axis of symmetry of a parabola KEY: Parabolas | Axis of Symmetry

5. ANS: B PTS: 1 DIF: L1 REF: 10-2 Quadratic Functions

OBJ: 10-2.1 Graphing y = ax^2 + bx + c

NAT: NAEP A1e | CAT5.LV19.54 | CAT5.LV19.55 | IT.LV15.DI | S9.TSK1.PRA | S10.TSK1.PRA | TV.LV19.18 | TV.LV19.52 | TV.LVALG.57 STA: NC 4.02

TOP: 10-2 Example 2

KEY: quadratic function | maximum | vertex | problem solving | word problem | multi-part question

MSC: NAEP A1e | CAT5.LV19.54 | CAT5.LV19.55 | IT.LV15.DI | S9.TSK1.PRA | S10.TSK1.PRA | TV.LV19.18 | TV.LV19.52 | TV.LVALG.57

6. ANS: D

The axis of symmetry for  is . In this case *x* = 0.

Substituting in the original equation, .

The vertex is .

|  |  |
| --- | --- |
|  | **Feedback** |
| **A** | Substitute zero back into the problem. |
| **B** | Substitute the zero back into the problem. |
| **C** | Find the axis of symmetry first. |
| **D** | Correct! |

PTS: 1 DIF: Basic REF: Lesson 9-1

OBJ: 9-1.3 Find the coordinates of the vertex of a parabola. NAT: NA 2 | NA 8 | NA 9 | NA 10 | NA 6

TOP: Find the coordinates of the vertex of a parabola KEY: Parabolas | Vertex

7. ANS: A PTS: 1 DIF: L1

REF: 10-5 Factoring to Solve Quadratic Equations OBJ: 10-5.1 Solving Quadratic Equations

NAT: NAEP A4a | NAEP A4c | CAT5.LV19.50 | CAT5.LV19.55 | IT.LV15.CP | IT.LV15.AM | S9.TSK1.PRA | S10.TSK1.PRA | TV.LV19.16 | TV.LV19.52 | TV.LVALG.57

STA: NC 4.02 TOP: 10-5 Example 1

KEY: zero-product property | solving quadratic equations

MSC: NAEP A4a | NAEP A4c | CAT5.LV19.50 | CAT5.LV19.55 | IT.LV15.CP | IT.LV15.AM | S9.TSK1.PRA | S10.TSK1.PRA | TV.LV19.16 | TV.LV19.52 | TV.LVALG.57

8. ANS: D PTS: 1 DIF: L1

REF: 10-5 Factoring to Solve Quadratic Equations OBJ: 10-5.1 Solving Quadratic Equations

NAT: NAEP A4a | NAEP A4c | CAT5.LV19.50 | CAT5.LV19.55 | IT.LV15.CP | IT.LV15.AM | S9.TSK1.PRA | S10.TSK1.PRA | TV.LV19.16 | TV.LV19.52 | TV.LVALG.57

STA: NC 4.02 TOP: 10-5 Example 1

KEY: zero-product property | solving quadratic equations

MSC: NAEP A4a | NAEP A4c | CAT5.LV19.50 | CAT5.LV19.55 | IT.LV15.CP | IT.LV15.AM | S9.TSK1.PRA | S10.TSK1.PRA | TV.LV19.16 | TV.LV19.52 | TV.LVALG.57

9. ANS: C PTS: 1 DIF: L2 REF: 10-4 Solving Quadratic Equations

OBJ: 10-4.2 Solving Quadratic Equations Using Square Roots

NAT: NAEP A4a | NAEP A4c | CAT5.LV19.50 | CAT5.LV19.56 | IT.LV15.DI | S9.TSK1.PRA | S10.TSK1.PRA | TV.LV19.18 | TV.LV19.52 | TV.LVALG.57 STA: NC 4.02

TOP: 10-4 Example 3

KEY: solving quadratic equations | square root | word problem | problem solving

MSC: NAEP A4a | NAEP A4c | CAT5.LV19.50 | CAT5.LV19.56 | IT.LV15.DI | S9.TSK1.PRA | S10.TSK1.PRA | TV.LV19.18 | TV.LV19.52 | TV.LVALG.57

10. ANS: B PTS: 1 DIF: L1

REF: 10-5 Factoring to Solve Quadratic Equations OBJ: 10-5.1 Solving Quadratic Equations

NAT: NAEP A4a | NAEP A4c | CAT5.LV19.50 | CAT5.LV19.55 | IT.LV15.CP | IT.LV15.AM | S9.TSK1.PRA | S10.TSK1.PRA | TV.LV19.16 | TV.LV19.52 | TV.LVALG.57

STA: NC 4.02 TOP: 10-5 Example 2

KEY: factoring | solving quadratic equations

MSC: NAEP A4a | NAEP A4c | CAT5.LV19.50 | CAT5.LV19.55 | IT.LV15.CP | IT.LV15.AM | S9.TSK1.PRA | S10.TSK1.PRA | TV.LV19.16 | TV.LV19.52 | TV.LVALG.57

11. ANS: D PTS: 1 DIF: L1

REF: 10-5 Factoring to Solve Quadratic Equations OBJ: 10-5.1 Solving Quadratic Equations

NAT: NAEP A4a | NAEP A4c | CAT5.LV19.50 | CAT5.LV19.55 | IT.LV15.CP | IT.LV15.AM | S9.TSK1.PRA | S10.TSK1.PRA | TV.LV19.16 | TV.LV19.52 | TV.LVALG.57

STA: NC 4.02 TOP: 10-5 Example 2

KEY: factoring | solving quadratic equations

MSC: NAEP A4a | NAEP A4c | CAT5.LV19.50 | CAT5.LV19.55 | IT.LV15.CP | IT.LV15.AM | S9.TSK1.PRA | S10.TSK1.PRA | TV.LV19.16 | TV.LV19.52 | TV.LVALG.57

12. ANS: D PTS: 1 DIF: L2

REF: 10-5 Factoring to Solve Quadratic Equations OBJ: 10-5.1 Solving Quadratic Equations

NAT: NAEP A4a | NAEP A4c | CAT5.LV19.50 | CAT5.LV19.55 | IT.LV15.CP | IT.LV15.AM | S9.TSK1.PRA | S10.TSK1.PRA | TV.LV19.16 | TV.LV19.52 | TV.LVALG.57

STA: NC 4.02 TOP: 10-5 Example 4

KEY: factoring | solving quadratic equations | word problem | problem solving

MSC: NAEP A4a | NAEP A4c | CAT5.LV19.50 | CAT5.LV19.55 | IT.LV15.CP | IT.LV15.AM | S9.TSK1.PRA | S10.TSK1.PRA | TV.LV19.16 | TV.LV19.52 | TV.LVALG.57

13. ANS: A PTS: 1 DIF: L1 REF: 10-7 Using the Quadratic Formula

OBJ: 10-7.1 Using the Quadratic Formula

NAT: NAEP A4a | CAT5.LV19.50 | IT.LV15.CP | IT.LV15.AM | S9.TSK1.PRA | S10.TSK1.PRA | TV.LV19.11 | TV.LV19.17 | TV.LV19.52 | TV.LVALG.57 STA: NC 1.02 | NC 4.02

TOP: 10-7 Example 2 KEY: quadratic formula | solving quadratic equations

MSC: NAEP A4a | CAT5.LV19.50 | IT.LV15.CP | IT.LV15.AM | S9.TSK1.PRA | S10.TSK1.PRA | TV.LV19.11 | TV.LV19.17 | TV.LV19.52 | TV.LVALG.57

14. ANS: A PTS: 1 DIF: L2 REF: 10-7 Using the Quadratic Formula

OBJ: 10-7.2 Choosing an Appropriate Method for Solving

NAT: NAEP A4a | CAT5.LV19.50 | IT.LV15.CP | IT.LV15.AM | S9.TSK1.PRA | S10.TSK1.PRA | TV.LV19.11 | TV.LV19.17 | TV.LV19.52 | TV.LVALG.57 STA: NC 1.02 | NC 4.02

TOP: 10-7 Example 4 KEY: solving quadratic equations

MSC: NAEP A4a | CAT5.LV19.50 | IT.LV15.CP | IT.LV15.AM | S9.TSK1.PRA | S10.TSK1.PRA | TV.LV19.11 | TV.LV19.17 | TV.LV19.52 | TV.LVALG.57

15. ANS: D PTS: 1 DIF: L2 REF: 10-7 Using the Quadratic Formula

OBJ: 10-7.2 Choosing an Appropriate Method for Solving

NAT: NAEP A4a | CAT5.LV19.50 | IT.LV15.CP | IT.LV15.AM | S9.TSK1.PRA | S10.TSK1.PRA | TV.LV19.11 | TV.LV19.17 | TV.LV19.52 | TV.LVALG.57 STA: NC 1.02 | NC 4.02

TOP: 10-7 Example 4 KEY: solving quadratic equations

MSC: NAEP A4a | CAT5.LV19.50 | IT.LV15.CP | IT.LV15.AM | S9.TSK1.PRA | S10.TSK1.PRA | TV.LV19.11 | TV.LV19.17 | TV.LV19.52 | TV.LVALG.57

16. ANS: D PTS: 1 DIF: L2 REF: 10-7 Using the Quadratic Formula

OBJ: 10-7.2 Choosing an Appropriate Method for Solving

NAT: NAEP A4a | CAT5.LV19.50 | IT.LV15.CP | IT.LV15.AM | S9.TSK1.PRA | S10.TSK1.PRA | TV.LV19.11 | TV.LV19.17 | TV.LV19.52 | TV.LVALG.57 STA: NC 1.02 | NC 4.02

TOP: 10-7 Example 4 KEY: solving quadratic equations

MSC: NAEP A4a | CAT5.LV19.50 | IT.LV15.CP | IT.LV15.AM | S9.TSK1.PRA | S10.TSK1.PRA | TV.LV19.11 | TV.LV19.17 | TV.LV19.52 | TV.LVALG.57

17. ANS: C PTS: 1 DIF: L1 REF: 10-8 Using the Discriminant

OBJ: 10-8.1 Number of Real Solutions of a Quadratic Equation

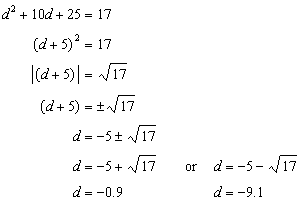
NAT: IT.LV15.AM | S9.TSK1.NS | S10.TSK1.NS | TV.LV19.16 | TV.LV19.18 | TV.LVALG.57

STA: NC 4.02 TOP: 10-8 Example 1

KEY: solving quadratic equations | one solution | two solutions | discriminant

MSC: IT.LV15.AM | S9.TSK1.NS | S10.TSK1.NS | TV.LV19.16 | TV.LV19.18 | TV.LVALG.57

18. ANS: B



|  |  |
| --- | --- |
|  | **Feedback** |
| **A** | Solve by finding the square root of both sides. |
| **B** | Correct! |
| **C** | Solve by finding the square root of both sides. |
| **D** | Solve by finding the square root of both sides. |

PTS: 1 DIF: Average REF: Lesson 9-4

OBJ: 9-4.1 Solve quadratic equations by finding the square root.

NAT: NA 2 | NA 8 | NA 9 | NA 10 | NA 6 STA: MA.A.4.7

TOP: Solve quadratic equations by finding the square root

KEY: Solve Quadratic Equations | Square Root

19. ANS: B PTS: 1 DIF: L2 REF: 2-7 Solving Proportions

OBJ: 2-7.1 To solve and apply proportions NAT: N.3.b| N.3.f| N.4.c

TOP: 2-7 Problem 3 Solving a Multi-Step Proportion

KEY: proportion | cross products | Cross Products Property MSC: DOK 1

20. ANS: D PTS: 1 DIF: L2

REF: 5-6 Parallel and Perpendicular Lines

OBJ: 5-6.2 To write equations of parallel lines and perpendicular lines

NAT: A.2.a| A.2.b STA: A.A.3.c TOP: 5-6 Problem 1 Writing an Equation of a Parallel Line

KEY: parallel lines MSC: DOK 1

21. ANS: D PTS: 1 DIF: L3 REF: 5-4 Point-Slope Form

OBJ: 5-4.1 To write and graph linear equations using point-slope form

NAT: A.2.a| A.2.b STA: A.A.3.c| A.A.4.a

TOP: 5-4 Problem 4 Using a Table to Write an Equation KEY: point-slope form

MSC: DOK 2

22. ANS: D PTS: 1 DIF: L3

REF: 6-3 Solving Systems Using Elimination

OBJ: 6-3.1 To solve systems by adding or subtracting to eliminate a variable

NAT: A.4.d TOP: 6-3 Problem 1 Solving a System by Adding Equations

KEY: elimination method MSC: DOK 1

23. ANS: C PTS: 1 DIF: L2 REF: 3-4 Solving Multi-Step Inequalities

OBJ: 3-4.1 To solve multi-step inequalities

TOP: 3-4 Problem 3 Using the Distributive Property MSC: DOK 1

24. ANS: A PTS: 1 DIF: L3 REF: 8-5 Factoring x^2 + bx + c

OBJ: 8-5.1 To factor trinomials of the form x^2 + bx + c NAT: N.5.c

STA: A.A.1.c TOP: 8-5 Problem 5 Factoring a Trinomial With Two Variables

MSC: DOK 1

25. ANS: A PTS: 1 DIF: L2 REF: 5-3 Slope-Intercept Form

OBJ: 5-3.1 To write linear equations using slope-intercept form

NAT: A.2.a| A.2.b STA: A.A.3.c| A.A.4.a

TOP: 5-3 Problem 2 Writing an Equation in Slope-Intercept Form

KEY: linear equation | slope-intercept form | y-intercept MSC: DOK 1

26. ANS: A PTS: 1 DIF: L3 REF: 5-1 Rate of Change and Slope

OBJ: 5-1.2 To find slope NAT: A.2.a| A.2.b STA: A.A.3.c| A.A.5.a| A.A.5.b| G.A.1.b

TOP: 5-1 Problem 4 Finding Slopes of Horizontal and Vertical Lines

KEY: slope MSC: DOK 1

27. ANS: A PTS: 1 DIF: L3

REF: 8-1 Adding and Subtracting Polynomials

OBJ: 8-1.1 To classify, add, and subtract polynomials NAT: A.3.c| A.3.e

TOP: 8-1 Problem 4 Adding Polynomials

KEY: polynomial | standard form of a polynomial | trinomial MSC: DOK 1

28. ANS: D PTS: 1 DIF: L3 REF: 8-5 Factoring x^2 + bx + c

OBJ: 8-5.1 To factor trinomials of the form x^2 + bx + c NAT: N.5.c

STA: A.A.1.c TOP: 8-5 Problem 2 Factoring x^2 + bx + c Where b < 0, c > 0

MSC: DOK 1

29. ANS: D PTS: 1 DIF: L3

REF: 7-4 More Multiplication Properties of Exponents OBJ: 7-4.1 To raise a power to a power

NAT: N.1.d| N.1.f| N.3.a| A.3.c| A.3.h STA: N.A.2.a

TOP: 7-4 Problem 2 Simplifying an Expression With Powers MSC: DOK 1

30. ANS: A PTS: 1 DIF: L3 REF: 8-2 Multiplying and Factoring

OBJ: 8-2.1 To multiply a monomial by a polynomial NAT: N.5.c| A.3.c| A.3.e

STA: A.A.1.c TOP: 8-2 Problem 1 Multiplying a Monomial and a Trinomial

KEY: polynomial | trinomial | monomial MSC: DOK 1