

Sharyland ISD Study Guide

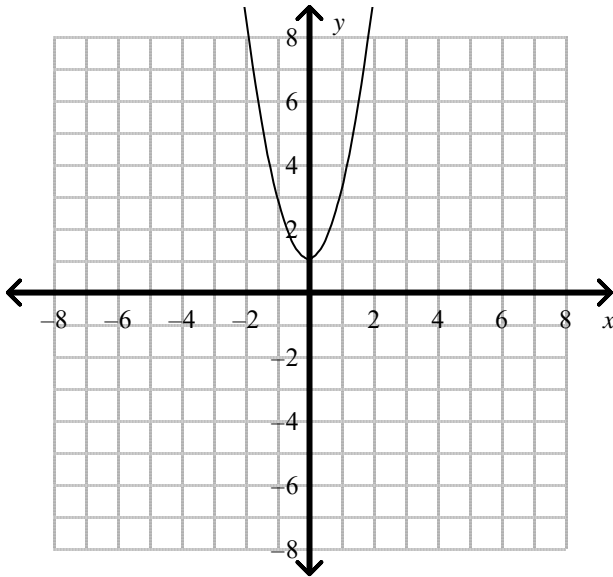
Algebra I Semester B



Student Name: _____
Student ID: _____

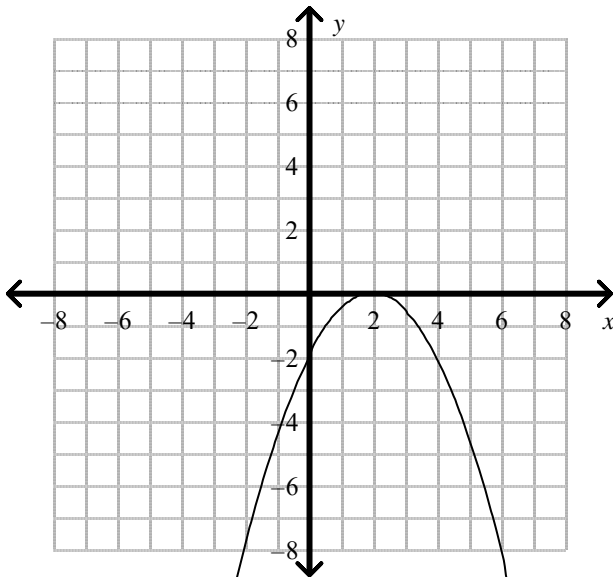
What are the coordinates of the vertex of the graph or table? Is it a maximum or minimum?

7.



- a. (0, 1); minimum
- b. (0, 1); maximum
- c. (1, -0); maximum
- d. (1, -0); minimum

8.



- a. (2, 0); minimum
- b. (2, 0); maximum
- c. (0, 2); minimum
- d. (0, 2); maximum

What is the factored form of the expression?

9. $3g^2 + 10g - 8$

- a. $(3g + 2)(g - 4)$
- b. $(3g - 2)(g - 4)$
- c. $(3g + 2)(g + 4)$
- d. $(3g - 2)(g + 4)$

What is the factored form of the following expressions?

___ 10. $w^2 + 18w + 77$

a. $(w - 7)(w - 11)$

b. $(w - 7)(w + 11)$

c. $(w + 7)(w + 11)$

d. $(w + 1)(w + 77)$

___ 11. $d^2 + d - 12$

a. $(d + 4)(d - 3)$

b. $(d - 4)(d + 3)$

c. $(d - 4)(d - 3)$

d. $(d + 4)(d + 3)$

___ 12. $d^2 - 14d + 45$

a. $(d + 5)(d + 9)$

b. $(d - 5)(d + 9)$

c. $(d - 5)(d - 9)$

d. $(d + 5)(d - 9)$

Simplify the product.

___ 13. $5a^2(3a^4 + 3b + 2)$

a. $8a^4 + 8ab + 5a^2$

b. $15a^8 + 3b + 10a^2$

c. $8a^6 + 15a^2b + 5a^2$

d. $15a^6 + 15a^2b + 10a^2$

___ 14. Tasha is planning an expansion of a square flower garden in a city park. If each side of the original garden is increased by 6 m, the new total area of the garden will be 144 m^2 . Find the length of each side of the original garden.

a. $\sqrt{6}$ m

b. 6 m

c. 18 m

d. 12 m

Write the polynomial in standard form. Then name the polynomial based on its degree and number of terms.

___ 15. $5g - g^3 + 4g^2 - 7$

a. $g^3 - 4g^2 + 5g - 7$; cubic trinomial

b. $4g^3 - g^2 + 5g - 7$; quadratic binomial

c. $-7 + 5g + 4g^2 - g^3$; cubic binomial

d. $-g^3 + 4g^2 + 5g - 7$; cubic polynomial

___ 16. The area of a rectangular painting is given by the trinomial $x^2 + x - 6$. What are the possible dimensions of the painting? Use factoring.

a. $x + 2$ and $x + 3$

b. $x - 2$ and $x - 3$

c. $x + 2$ and $x - 3$

d. $x - 2$ and $x + 3$

What is the factored form of the following expressions?

___ 17. $x^2 - 15xy + 50y^2$

a. $(x - 10y)(x - 5y)$

b. $(x + 10y)(x - 5y)$

c. $(x - 10y)(x + 5y)$

d. $(x + 10y)(x + 5y)$

18. The linear factors of a quadratic expression are $(x + 4)$ and $(x - 8)$. What are the zeros of the related quadratic function?

- a. -4 and 8
- b. 4 and 8
- c. 4 and -8
- d. -4 and -8

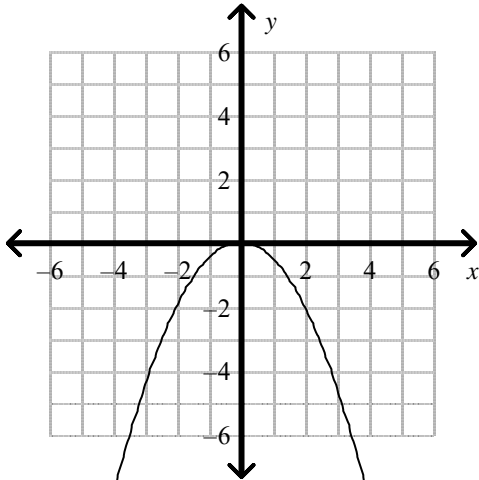
What is the factored form of the expression?

19. $r^2 - 49$
- a. $(r - 7)(r - 7)$
 - b. $(r - 7)(r + 9)$
 - c. $(r - 7)(r + 7)$
 - d. $(r + 7)(r + 7)$

Graph the function and identify the domain and range.

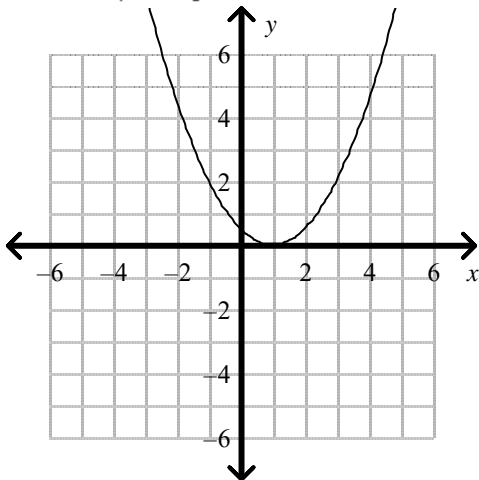
20. $y = 0.5x^2$

a.



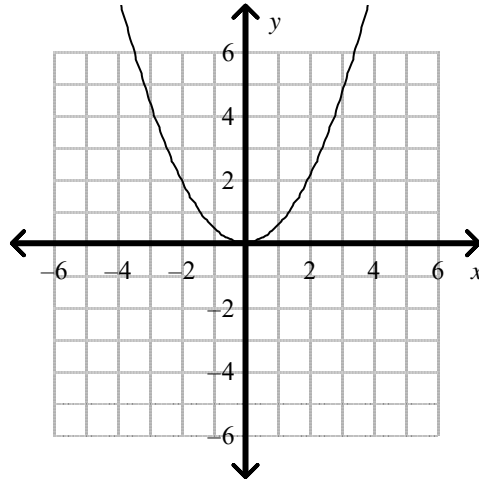
domain: $(-\infty, \infty)$
range: $(-\infty, 0]$

b.



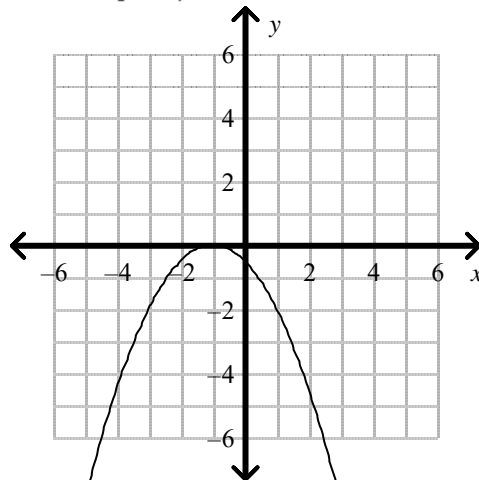
domain: $(-\infty, \infty)$
range: $[0, \infty)$

c.



domain: $(-\infty, \infty)$
range: $[0, \infty)$

d.

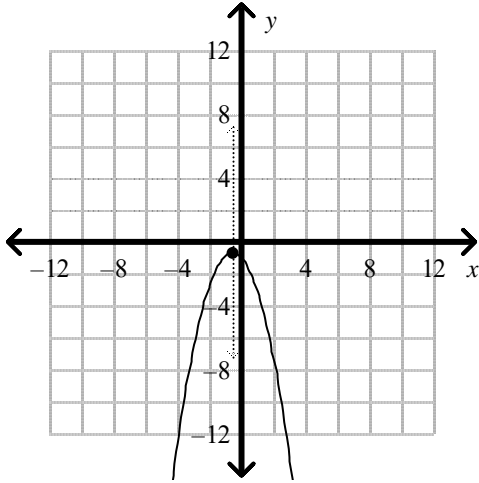


domain: $(-\infty, \infty)$
range: $(-\infty, 0]$

Graph the function. Identify the vertex and axis of symmetry.

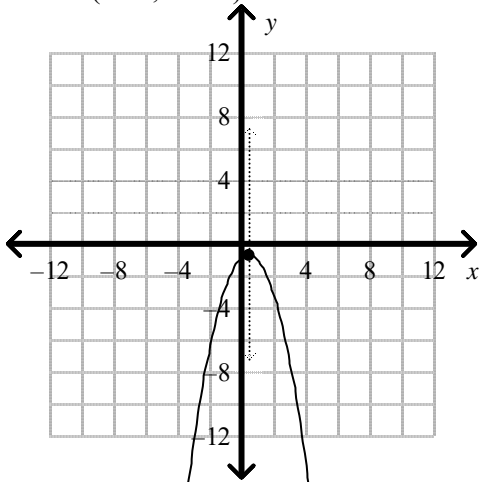
21. $f(x) = -x^2 - x - 1$

a.



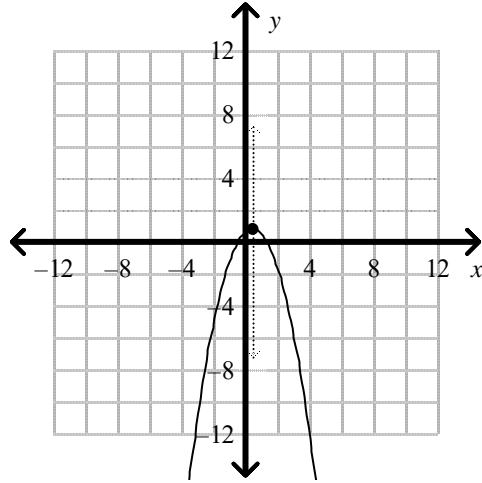
axis of symmetry: $x = 0$
vertex: $(-0.5, -0.75)$

b.



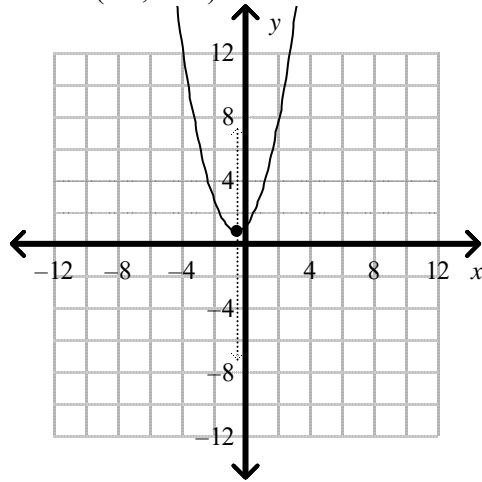
axis of symmetry: $x = 0.5$
vertex: $(0.5, -0.75)$

c.



axis of symmetry: $x = 0.5$
vertex: $(0.5, 0.75)$

d.



axis of symmetry: $x = 0$
vertex: $(-0.5, 0.75)$

Simplify the difference.

22. $(2w^2 - 8w - 7) - (6w^2 + 5w - 2)$

a. $8w^2 - 3w - 9$

b. $-4w^2 - 3w - 9$

c. $-4w^2 - 13w - 5$

d. $8w^2 + 13w + 5$

- ___ 23. Identify the maximum or minimum value and the domain and range of the graph of the function $y = (x - 2)^2 - 2$.
- minimum value: 2
domain: all real numbers ≥ 2
range: all real numbers
 - maximum value: 2
domain: all real numbers
range: all real numbers ≤ 2
 - maximum value: -2
domain: all real numbers ≤ -2
range: all real numbers
 - minimum value: -2
domain: all real numbers
range: all real numbers ≥ -2

What is a simpler form of each product?

- ___ 24. $(2x - 6)^2$
- $4x^2 + 36$
 - $4x^2 - 24x + 36$
 - $4x^2 - 8x + 36$
 - $4x^2 - 12x + 36$

Describe a pattern in each sequence. What are the next two terms of each sequence?

- ___ 25. 5, -15 , 45, -135 , ...
- subtract 20 from the previous term; 405, -1215
 - multiply the previous term by 3; -405 , -1215
 - add -20 to the previous term; -115 , -95
 - multiply the previous term by -3 ; 405, -1215
- ___ 26. -8 , -4 , 0, 4, ...
- add 4 to the previous term; 8, 12
 - multiply the previous term by 4; 8, 64
 - multiply the previous term by 4; 16, 64
 - subtract 4 from the previous term; 0, -4
- ___ 27. Does the rule $y = -3 \cdot 2^x$ represent a linear or an exponential function?
- linear
 - exponential

Simplify the sum.

- ___ 28. $(3u^3 + 6u^2 + 4) + (3u^3 - 7u + 2)$
- $6 - 7u + 6u^2 + 6u^3$
 - $0u^3 + 6u^2 - 7u + 6$
 - $6u^3 + 6u^2 - 7u + 6$
 - $0u^3 - 7u^2 + 6u - 6$

Simplify the product using FOIL.

- ___ 29. $(3x - 7)(3x - 5)$
- $9x^2 - 36x - 35$
 - $9x^2 + 36x + 35$
 - $9x^2 + 6x + 35$
 - $9x^2 - 36x + 35$

Factor the polynomial.

- ___ 30. $54c^3d^4 + 9c^4d^2$
- a. $9c^4d^2(6d^2 + 1)$ c. $9c^4d^2(d^2 + 6)$
b. $9c^3d^2(d^2 + 6c)$ d. $9c^3d^2(6d^2 + c)$

What are the solutions of the equation?

- ___ 31. $z^2 + 2z + 1 = 0$
- a. $-1, -1$ c. $-1, 1$
b. $1, 1$ d. $1, -1$

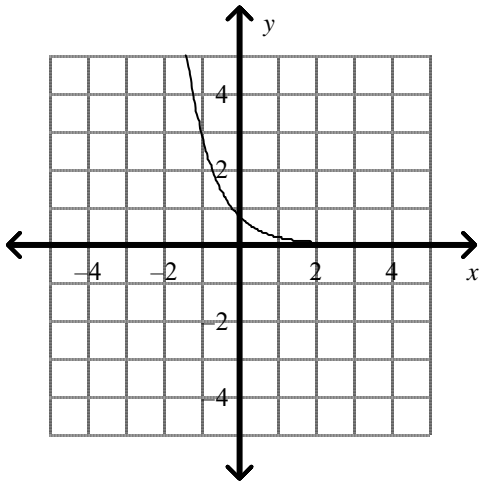
Simplify the product using the distributive property.

- ___ 32. $(4h - 5)(4h - 3)$
- a. $16h^2 + 32h + 15$ c. $16h^2 - 8h - 15$
b. $16h^2 + 8h - 15$ d. $16h^2 - 32h + 15$
- ___ 33. $(-3h - 6)(3h - 4)$
- a. $-9h^2 - 6h + 24$ c. $-9h^2 + 30h - 24$
b. $-9h^2 + 6h + 24$ d. $-9h^2 - 30h - 24$

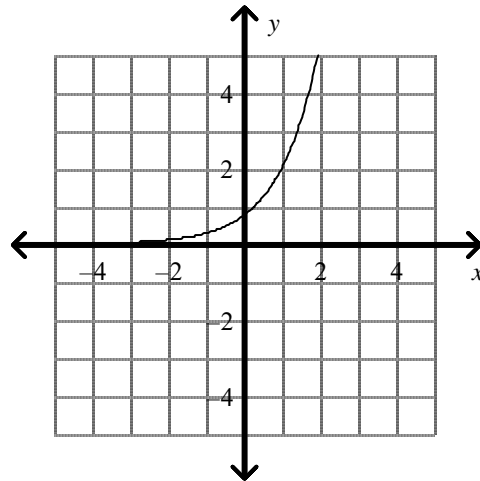
What is the graph of the function?

___ 34. $y = \frac{3}{4} \cdot 4^x$

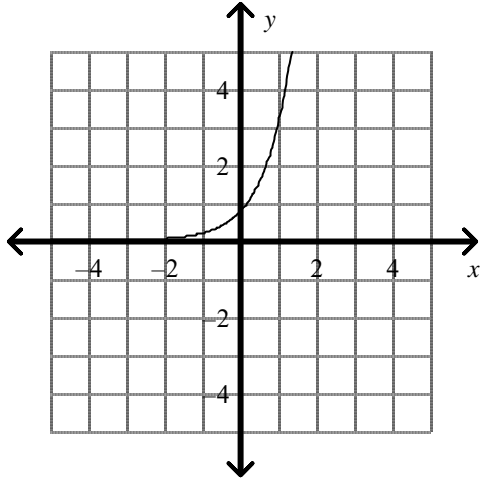
a.



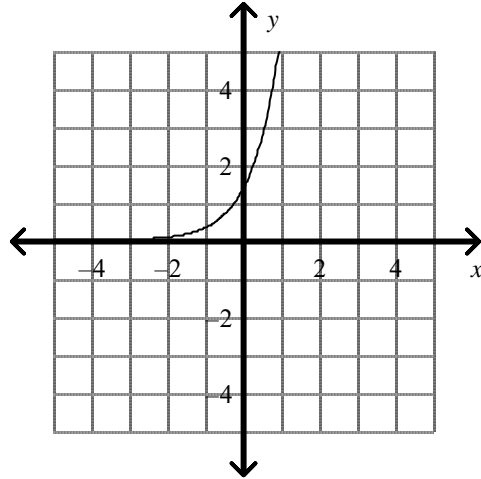
c.



b.



d.



- ___ 35. Is the sequence geometric? If so, identify the common ratio.
5, 20, 80, 320, ...
a. yes; 4 b. yes; -4 c. yes; 8 d. no
- ___ 36. How is the graph of $y = -3x^2 - 3$ different from the graph of $y = -3x^2$?
a. It is shifted 3 unit(s) up. c. It is shifted 3 unit(s) down.
b. It is shifted 3 unit(s) right. d. It is shifted 3 unit(s) left.
- ___ 37. How is the graph of $y = -2x^2 + 3$ different from the graph of $y = -2x^2$?
a. It is shifted 3 unit(s) right. c. It is shifted 3 unit(s) up.
b. It is shifted 3 unit(s) left. d. It is shifted 3 unit(s) down.

Solve the equation using the Zero-Product Property.

- ___ 38. $(x + 3)(x + 1) = 0$
a. -3, -1 c. -1, 1
b. -3, 1 d. 3, -1

What is the factored form of the expression?

- ___ 39. $4x^2 - 81y^2$
a. $(2x + 9)(2x - 9)$ c. $(2x + 9y)(2x - 9y)$
b. $(2x - 9y)^2$ d. $(2x + 9y)^2$

Solve the equation using square roots.

- ___ 40. $x^2 - 25 = 0$
a. $-\sqrt{5}, \sqrt{5}$ c. -5, 5
b. -25, 25 d. no real number solutions

Simplify the expression.

- ___ 41. $(-8.6)^0$
a. -1 b. 0 c. -8.6 d. 1

- ___ 42. $7a^{-5}b^3$
 a. $7ab^{-15}$ b. $\frac{b^3}{7a^5}$ c. $\frac{7b^3}{a^5}$ d. $7a^5b^{-3}$
- ___ 43. $7x^{-8} \cdot 6x^3$
 a. $\frac{42}{x^5}$ b. $\frac{1}{42x^5}$ c. $42x^{11}$ d. $13x^{-5}$
- ___ 44. $(k^2)^4$
 a. k^6 b. $2k^8$ c. k^{16} d. k^8
- ___ 45. $(5k^2)^3$
 a. $125k^6$ b. $125k^5$ c. $5k^6$ d. $5k^8$
- ___ 46. $\frac{x^5}{x^9}$
 a. $\frac{1}{x^{14}}$ b. x^4 c. x^{14} d. $\frac{1}{x^4}$
- ___ 47. $\frac{m^{-6}n^{-3}}{m^{-13}n^{-1}}$
 a. $\frac{n^{-9}}{n^{-14}}$ b. m^3n^{12} c. $\frac{m^7}{n^2}$ d. m^7n^2

Simplify the radical expression.

- ___ 48. $\sqrt{144}$
 a. 12 b. $12\sqrt{2}$ c. 6 d. $4\sqrt{6}$
- ___ 49. $-3\sqrt{180h^4}$
 a. $6\sqrt{5h^4}$ c. $-18h^2\sqrt{5}$
 b. $-18\sqrt{5h^4}$ d. $-3h\sqrt{90}$
- ___ 50. $\sqrt{\frac{10}{81}}$
 a. $\frac{10}{9}$ b. $\frac{\sqrt{10}}{41}$ c. $9\sqrt{10}$ d. $\frac{\sqrt{10}}{9}$

Algebra 1 Semester B CBE Answer Section

REVIEW

- ANS: C PTS: 1 DIF: L3 REF: 7-3 Multiplying Binomials
OBJ: 7-3.1 To multiply two binomials or a binomial by a trinomial
STA: (10)(B)| (10)(D) TOP: 7-3 Problem 6 Multiplying a Trinomial and a Binomial
KEY: multiplying binomials
- ANS: A PTS: 1 DIF: L3 REF: 9-1 Exponential Functions
OBJ: 9-1.1 To evaluate and graph exponential functions
STA: (9)(A)| (9)(B)| (9)(C)| (9)(D)| (12)(B)
TOP: 9-1 Problem 3 Evaluating an Exponential Function KEY: exponential function
- ANS: A PTS: 1 DIF: L2 REF: 7-4 Multiplying Special Cases
OBJ: 7-4.1 To find the square of a binomial and to find the product of a sum and difference
STA: (10)(B) TOP: 7-4 Problem 4 Finding the Product of a Sum and Difference
- ANS: C PTS: 1 DIF: L3 REF: 7-2 Multiplying and Factoring
OBJ: 7-2.2 To factor a monomial from a polynomial STA: (10)(B)| (10)(D)| (10)(C)
TOP: 7-2 Problem 2 Finding the Greatest Common Factor
- ANS: A PTS: 1 DIF: L2
REF: 6-1 Arithmetic and Geometric Sequences
OBJ: 6-1.1 To identify and extend patterns in arithmetic and geometric sequences
STA: (12)(B)| (12)(D) TOP: 6-1 Problem 2 Identifying an Arithmetic Sequence
KEY: sequence | arithmetic sequence | common difference
- ANS: B PTS: 1 DIF: L4 REF: 7-7 Factoring Special Cases
OBJ: 7-7.1 To factor perfect-square trinomials and the differences of two squares
STA: (10)(E)| (10)(F) TOP: 7-7 Problem 1 Factoring a Perfect-Square Trinomial
KEY: perfect-square trinomial
- ANS: A PTS: 1 DIF: L3
REF: 8-1 Quadratic Graphs and Their Properties
OBJ: 8-1.1 To graph quadratic functions of the form $y = ax^2$ and $y = ax^2 + c$
STA: (6)(A)| (7)(A)| (7)(C)
TOP: 8-1 Problem 1 Identifying Key Attributes of a Quadratic Function
KEY: quadratic function | parabola | maximum | minimum | vertex
- ANS: B PTS: 1 DIF: L3
REF: 8-1 Quadratic Graphs and Their Properties
OBJ: 8-1.1 To graph quadratic functions of the form $y = ax^2$ and $y = ax^2 + c$
STA: (6)(A)| (7)(A)| (7)(C)
TOP: 8-1 Problem 1 Identifying Key Attributes of a Quadratic Function
KEY: quadratic function | parabola | maximum | minimum | vertex
- ANS: D PTS: 1 DIF: L3 REF: 7-6 Factoring $ax^2 + bx + c$
OBJ: 7-6.1 To factor trinomials of the form $ax^2 + bx + c$ STA: (10)(D)| (10)(E)
TOP: 7-6 Problem 2 Factoring When ac Is Negative
- ANS: C PTS: 1 DIF: L3 REF: 7-5 Factoring $x^2 + bx + c$
OBJ: 7-5.1 To factor trinomials of the form $x^2 + bx + c$ STA: (10)(E)
TOP: 7-5 Problem 2 Factoring $x^2 + bx + c$ Where $b > 0, c > 0$
- ANS: A PTS: 1 DIF: L3 REF: 7-5 Factoring $x^2 + bx + c$
OBJ: 7-5.1 To factor trinomials of the form $x^2 + bx + c$ STA: (10)(E)
TOP: 7-5 Problem 4 Factoring $x^2 + bx + c$ Where $c < 0$
- ANS: C PTS: 1 DIF: L3 REF: 7-5 Factoring $x^2 + bx + c$
OBJ: 7-5.1 To factor trinomials of the form $x^2 + bx + c$ STA: (10)(E)

- TOP: 7-5 Problem 3 Factoring $x^2 + bx + c$ Where $b < 0, c > 0$
13. ANS: D PTS: 1 DIF: L3 REF: 7-2 Multiplying and Factoring
OBJ: 7-2.1 To multiply a monomial by a polynomial STA: (10)(B)| (10)(D)| (10)(C)
TOP: 7-2 Problem 1 Multiplying Polynomials of Degree One KEY: polynomial | monomial | trinomial
14. ANS: B PTS: 1 DIF: L3
REF: 8-6 Factoring to Solve Quadratic Equations
OBJ: 8-6.1 To solve quadratic equations by factoring STA: (8)(A)
TOP: 8-6 Problem 4 Using Factoring to Solve a Real-World Problem
KEY: Zero-Product Property
15. ANS: D PTS: 1 DIF: L3
REF: 7-1 Adding and Subtracting Polynomials
OBJ: 7-1.1 To classify, add, and subtract polynomials STA: (10)(A)
TOP: 7-1 Problem 3 Classifying Polynomials
KEY: monomial | degree of a monomial | polynomial | degree of a polynomial | standard form of a polynomial | trinomial
16. ANS: D PTS: 1 DIF: L3 REF: 7-5 Factoring $x^2 + bx + c$
OBJ: 7-5.1 To factor trinomials of the form $x^2 + bx + c$ STA: (10)(E)
TOP: 7-5 Problem 5 Applying Factoring Trinomials
17. ANS: A PTS: 1 DIF: L3 REF: 7-5 Factoring $x^2 + bx + c$
OBJ: 7-5.1 To factor trinomials of the form $x^2 + bx + c$ STA: (10)(E)
TOP: 7-5 Problem 6 Factoring a Trinomial With Two Variables
18. ANS: A PTS: 1 DIF: L3 REF: 8-7 Writing Quadratic Functions
OBJ: 8-7.1 To use the zeros of a quadratic function to write a quadratic equation
STA: (6)(C)| (7)(B) TOP: 8-7 Problem 1 Relating Linear Factors and Zeros
KEY: linear factor
19. ANS: C PTS: 1 DIF: L2 REF: 7-7 Factoring Special Cases
OBJ: 7-7.1 To factor perfect-square trinomials and the differences of two squares
STA: (10)(E)| (10)(F) TOP: 7-7 Problem 3 Factoring a Difference of Two Squares
KEY: difference of two squares
20. ANS: C PTS: 1 DIF: L3
REF: 8-1 Quadratic Graphs and Their Properties
OBJ: 8-1.1 To graph quadratic functions of the form $y = ax^2$ and $y = ax^2 + c$
STA: (6)(A)| (7)(A)| (7)(C) TOP: 8-1 Problem 2 Graphing $y = ax^2$
KEY: quadratic function | parabola | standard form of a quadratic function | axis of symmetry
21. ANS: A PTS: 1 DIF: L3 REF: 8-2 Quadratic Functions
OBJ: 8-2.1 To graph quadratic functions of the form $y = ax^2 + bx + c$
STA: (7)(A)| (8)(B) TOP: 8-2 Problem 1 Graphing $y = ax^2 + bx + c$
KEY: vertex | axis of symmetry
22. ANS: C PTS: 1 DIF: L3
REF: 7-1 Adding and Subtracting Polynomials
OBJ: 7-1.1 To classify, add, and subtract polynomials STA: (10)(A)
TOP: 7-1 Problem 5 Subtracting Polynomials
KEY: polynomial | standard form of a polynomial | trinomial
23. ANS: D PTS: 1 DIF: L3
REF: 8-4 Vertex Form of a Quadratic Function
OBJ: 8-4.1 To identify and graph quadratic functions STA: (6)(A)| (6)(B)| (7)(A)| (12)(B)
TOP: 8-4 Problem 1 Interpreting Vertex Form
KEY: parabola | vertex form | minimum value | maximum value
24. ANS: B PTS: 1 DIF: L2 REF: 7-4 Multiplying Special Cases
OBJ: 7-4.1 To find the square of a binomial and to find the product of a sum and difference

- STA: (10)(B) TOP: 7-4 Problem 1 Squaring a Binomial
25. ANS: D PTS: 1 DIF: L3
 REF: 6-1 Arithmetic and Geometric Sequences
 OBJ: 6-1.1 To identify and extend patterns in arithmetic and geometric sequences
 STA: (12)(B)| (12)(D) TOP: 6-1 Problem 1 Extending Sequences
 KEY: sequence | term of a sequence | arithmetic sequence
26. ANS: A PTS: 1 DIF: L3
 REF: 6-1 Arithmetic and Geometric Sequences
 OBJ: 6-1.1 To identify and extend patterns in arithmetic and geometric sequences
 STA: (12)(B)| (12)(D) TOP: 6-1 Problem 1 Extending Sequences
 KEY: sequence | term of a sequence | arithmetic sequence
27. ANS: B PTS: 1 DIF: L2 REF: 9-1 Exponential Functions
 OBJ: 9-1.1 To evaluate and graph exponential functions
 STA: (9)(A)| (9)(B)| (9)(C)| (9)(D)| (12)(B)
 TOP: 9-1 Problem 1 Identifying Linear and Exponential Functions
 KEY: exponential function
28. ANS: C PTS: 1 DIF: L3
 REF: 7-1 Adding and Subtracting Polynomials
 OBJ: 7-1.1 To classify, add, and subtract polynomials STA: (10)(A)
 TOP: 7-1 Problem 4 Adding Polynomials KEY: polynomial | standard form of a polynomial | trinomial
29. ANS: D PTS: 1 DIF: L3 REF: 7-3 Multiplying Binomials
 OBJ: 7-3.1 To multiply two binomials or a binomial by a trinomial
 STA: (10)(B)| (10)(D) TOP: 7-3 Problem 4 Using FOIL
 KEY: multiplying binomials
30. ANS: D PTS: 1 DIF: L4 REF: 7-2 Multiplying and Factoring
 OBJ: 7-2.2 To factor a monomial from a polynomial STA: (10)(B)| (10)(D)| (10)(C)
 TOP: 7-2 Problem 3 Factoring Out a Monomial
31. ANS: A PTS: 1 DIF: L3
 REF: 8-6 Factoring to Solve Quadratic Equations
 OBJ: 8-6.1 To solve quadratic equations by factoring STA: (8)(A)
 TOP: 8-6 Problem 2 Solving by Factoring KEY: Zero-Product Property
32. ANS: D PTS: 1 DIF: L3 REF: 7-3 Multiplying Binomials
 OBJ: 7-3.1 To multiply two binomials or a binomial by a trinomial
 STA: (10)(B)| (10)(D) TOP: 7-3 Problem 2 Using the Distributive Property
 KEY: multiplying binomials
33. ANS: A PTS: 1 DIF: L3 REF: 7-3 Multiplying Binomials
 OBJ: 7-3.1 To multiply two binomials or a binomial by a trinomial
 STA: (10)(B)| (10)(D) TOP: 7-3 Problem 2 Using the Distributive Property
 KEY: multiplying binomials
34. ANS: B PTS: 1 DIF: L4 REF: 9-1 Exponential Functions
 OBJ: 9-1.1 To evaluate and graph exponential functions
 STA: (9)(A)| (9)(B)| (9)(C)| (9)(D)| (12)(B)
 TOP: 9-1 Problem 4 Graphing an Exponential Function KEY: exponential function
35. ANS: A PTS: 1 DIF: L2
 REF: 6-1 Arithmetic and Geometric Sequences
 OBJ: 6-1.1 To identify and extend patterns in arithmetic and geometric sequences
 STA: (12)(B)| (12)(D) TOP: 6-1 Problem 3 Identifying Geometric Sequences
 KEY: geometric sequence | common ratio
36. ANS: C PTS: 1 DIF: L3
 REF: 8-1 Quadratic Graphs and Their Properties

- OBJ: 8-1.1 To graph quadratic functions of the form $y = ax^2$ and $y = ax^2 + c$
 STA: (6)(A)| (7)(A)| (7)(C) TOP: 8-1 Problem 4 Graphing $y = ax^2 + c$
 KEY: quadratic function | parabola | quadratic parent function
37. ANS: C PTS: 1 DIF: L3
 REF: 8-1 Quadratic Graphs and Their Properties
 OBJ: 8-1.1 To graph quadratic functions of the form $y = ax^2$ and $y = ax^2 + c$
 STA: (6)(A)| (7)(A)| (7)(C) TOP: 8-1 Problem 4 Graphing $y = ax^2 + c$
 KEY: quadratic function | parabola | quadratic parent function
38. ANS: A PTS: 1 DIF: L2
 REF: 8-6 Factoring to Solve Quadratic Equations
 OBJ: 8-6.1 To solve quadratic equations by factoring STA: (8)(A)
 TOP: 8-6 Problem 1 Using the Zero-Product Property KEY: Zero-Product Property
39. ANS: C PTS: 1 DIF: L4 REF: 7-7 Factoring Special Cases
 OBJ: 7-7.1 To factor perfect-square trinomials and the differences of two squares
 STA: (10)(E)| (10)(F) TOP: 7-7 Problem 4 Factoring a Difference of Two Squares
 KEY: difference of two squares
40. ANS: C PTS: 1 DIF: L2 REF: 8-5 Solving Quadratic Equations
 OBJ: 8-5.1 To solve quadratic equations by graphing and using square roots
 STA: (7)(A)| (8)(A)| (12)(E) TOP: 8-5 Problem 3 Solving Using Square Roots
 KEY: quadratic equation | root of an equation
41. ANS: D PTS: 1 DIF: L2 REF: 8-1 Zero and Negative Exponents
 OBJ: 8-1.1 Zero and Negative Exponents NAT: ADP J.1.1 | ADP J.1.6
 STA: TX TEKS A.11A TOP: 8-1 Example 1
 KEY: zero as an exponent | negative exponent | simplifying a power
42. ANS: C PTS: 1 DIF: L2 REF: 8-1 Zero and Negative Exponents
 OBJ: 8-1.1 Zero and Negative Exponents NAT: ADP J.1.1 | ADP J.1.6
 STA: TX TEKS A.11A TOP: 8-1 Example 2
 KEY: zero as an exponent | negative exponent | simplifying an exponential expression
43. ANS: A PTS: 1 DIF: L2
 REF: 8-3 Multiplication Properties of Exponents OBJ: 8-3.1 Multiplying Powers
 NAT: ADP I.1.5 | ADP J.1.1 STA: TX TEKS A.11A
 TOP: 8-1 Example 2
 KEY: exponential expression | simplifying an exponential expression | multiplying powers with the same base
44. ANS: D PTS: 1 DIF: L2
 REF: 8-4 More Multiplication Properties of Exponents OBJ: 8-4.1 Raising a Power to a Power
 NAT: ADP I.1.5 | ADP J.1.1 STA: TX TEKS A.11A
 TOP: 8-4 Example 1
 KEY: raising a power to a power | exponential expression | simplifying an exponential expression
45. ANS: A PTS: 1 DIF: L2
 REF: 8-4 More Multiplication Properties of Exponents OBJ: 8-4.2 Raising a Product to a Power
 NAT: ADP I.1.5 | ADP J.1.1 STA: TX TEKS A.11A
 TOP: 8-4 Example 3
 KEY: raising a product to a power | exponential expression | simplifying an exponential expression
46. ANS: D PTS: 1 DIF: L2
 REF: 8-5 Division Properties of Exponents
 OBJ: 8-5.1 Dividing Powers With the Same Base NAT: ADP I.1.5 | ADP I.2.2 | ADP J.1.1
 STA: TX TEKS A.11A TOP: 8-5 Example 1
 KEY: dividing powers with the same base | exponential expression
47. ANS: C PTS: 1 DIF: L2

REF: 8-5 Division Properties of Exponents

OBJ: 8-5.1 Dividing Powers With the Same Base

NAT: ADP I.1.5 | ADP I.2.2 | ADP J.1.1

STA: TX TEKS A.11A

TOP: 8-5 Example 1

KEY: dividing powers with the same base | exponential expression

48. ANS: A PTS: 1 DIF: L2 REF: 11-1 Simplifying Radicals

OBJ: 11-1.1 Simplifying Radical Expressions Involving Products

NAT: NAEP 2005 N3a | NAEP 2005 N5b | NAEP 2005 A3b | NAEP 2005 A3c | ADP J.1.1 | ADP J.1.6

TOP: 11-1 Example 1

KEY: radical expressions | Multiplication Property of Square Roots | square root

49. ANS: C PTS: 1 DIF: L2 REF: 11-1 Simplifying Radicals

OBJ: 11-1.1 Simplifying Radical Expressions Involving Products

NAT: NAEP 2005 N3a | NAEP 2005 N5b | NAEP 2005 A3b | NAEP 2005 A3c | ADP J.1.1 | ADP J.1.6

TOP: 11-1 Example 2

KEY: radical expressions | Multiplication Property of Square Roots | square root

50. ANS: D PTS: 1 DIF: L2 REF: 11-1 Simplifying Radicals

OBJ: 11-1.2 Simplifying Radical Expressions Involving Quotients

NAT: NAEP 2005 N3a | NAEP 2005 N5b | NAEP 2005 A3b | NAEP 2005 A3c | ADP J.1.1 | ADP J.1.6

TOP: 11-1 Example 5

KEY: Division Property of Square Roots | radical expressions | fractions within a radical