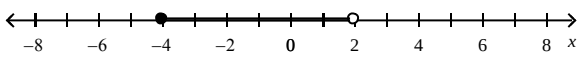
Algebra 2: Midterm Final Review

Multiple Choice

1) Write the set in set-builder notation.



A $[-4, 2)$ B $\{x \mid -4 < x < 2\}$ C $\{x \mid -4 \le x < 2\}$ D $[-4, 2]$

2) Find the additive and multiplicative inverse of $\dot{\frac{7}{11}}$.

A additive inverse: $\dot{\frac{4}{11}}$;
multiplicative inverse: 0

B additive inverse: $-\dot{\frac{11}{7}}$;
multiplicative inverse: $\dot{\frac{11}{7}}$

C additive inverse: $-\dot{\frac{7}{11}}$;
multiplicative inverse: $\dot{\frac{11}{7}}$

D additive inverse: $\dot{\frac{11}{7}}$;
multiplicative inverse: $-\dot{\frac{7}{11}}$

3) Identify the property demonstrated by the equation $6 + 12 = 18$.
A Commutative Property B Closure Property C Distributive Property D Associative Property

4) Simplify $\frac{\sqrt{6}}{\sqrt{13}}$ by rationalizing the denominator.

A $\frac{6}{13}$ B $\frac{6}{\sqrt{78}}$ C $\frac{\sqrt{78}}{13}$ D $\frac{\sqrt{6}}{13}$

5) Simplify the expression $a^2 - 7a - 7b + 5a^2$.
A $5a^2 - 7a - 7b$ B $6a^2 - 7a - 7b$ C $-a^2 - 7b$ D $-2a^2 - 7b$

6) Simplify the expression $(-1)^{-2}(-3)^0$.
A 0 B -1 C 1 D -3

7) Simplify the expression $(-2a)^4(a^2b)^6$. Assume all variables are nonzero.
A $-16a^{16}b^6$ B $16a^{16}b^6$ C $-16a^{48}b^6$ D $16a^{48}b^6$

8) Simplify the expression $\frac{7.29 \times 10^{-10}}{2.24 \times 10^{1}}$. Write the answer in scientific notation.
A 3.25×10^{-11} B 3.25×10^{-9} C 3.25×10^{-10} D 3.25×10^{11}

9) The commercial jet that travels from Miami to New York averages about 300 mi/h. The air distance from Miami to New York is 1092 miles. Write a function to represent the distance *d* remaining on the trip *t* hours after takeoff.

A $d = 300t + 1092$ B $d = 1092t + 300$ C $d = 300 - 1092t$ D $d = 1092 - 300t$

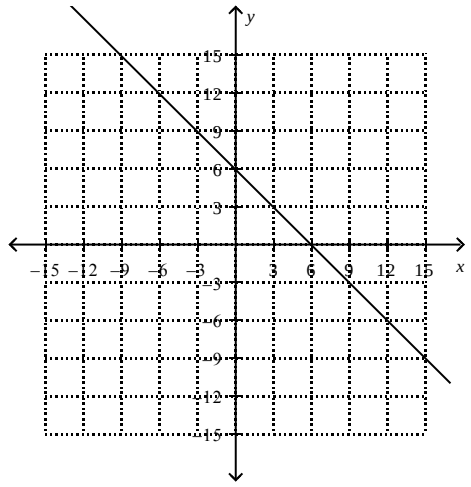
10) Determine whether the data set could represent a linear function.

x	*f(x)*
0	−1
1	2
2	5
3	8

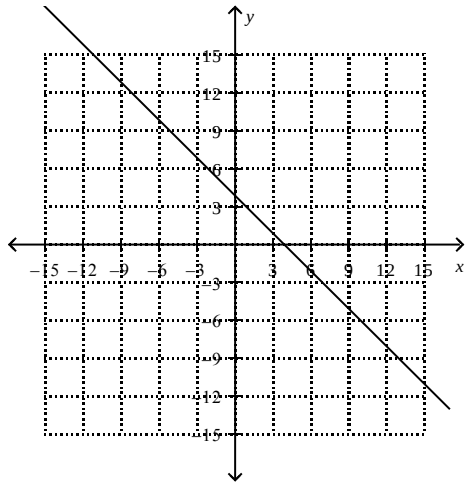
A The data set is constant. B Cannot be determined C No, the data set does not represent a linear function. D Yes, the data set could represent a linear function.

11) Graph the line with slope −1 that passes through (3, 3).

A



B



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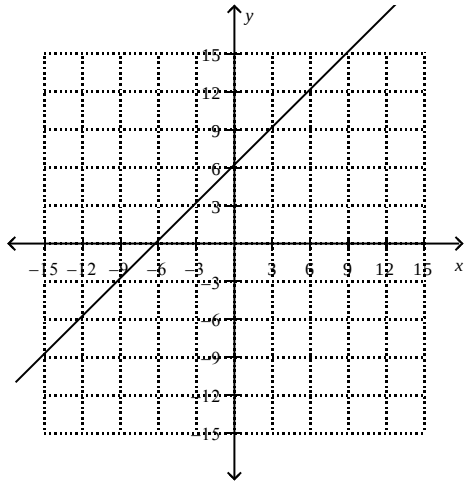
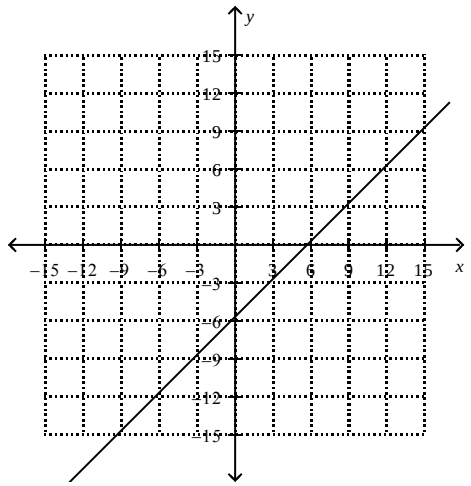
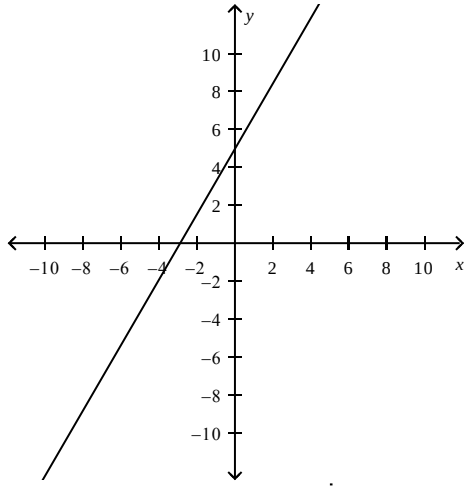


D

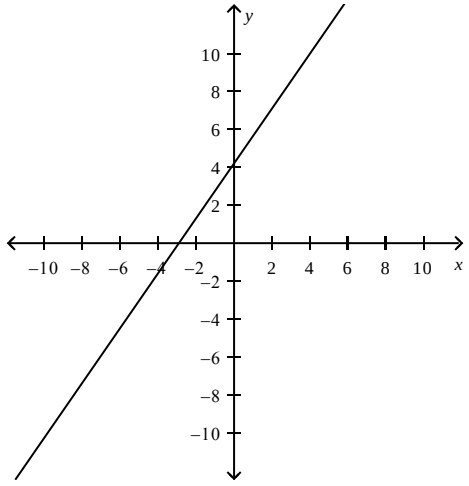


12) Find the intercepts of $4x - 4y = -16$, and graph the line.

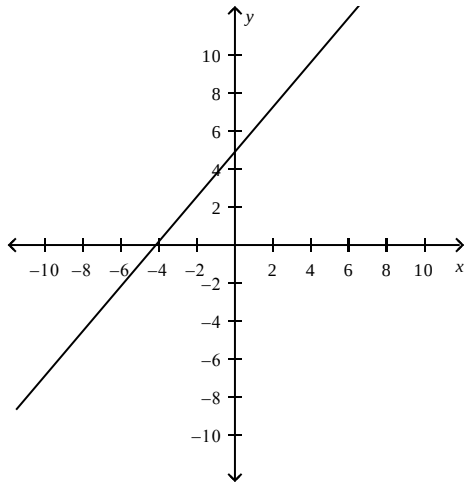
A *x*-intercept: $-\frac{11}{4}$, *y*-intercept: $\frac{19}{4}$



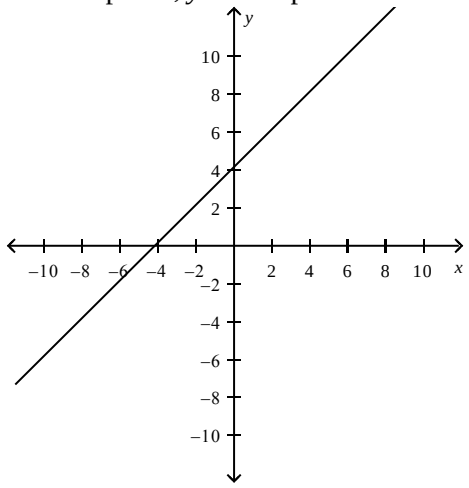
C *x*-intercept: $-\frac{11}{4}$, *y*-intercept: 4



B *x*-intercept: –4, *y*-intercept: $\frac{19}{4}$



D *x*-intercept: –4, *y*-intercept: 4



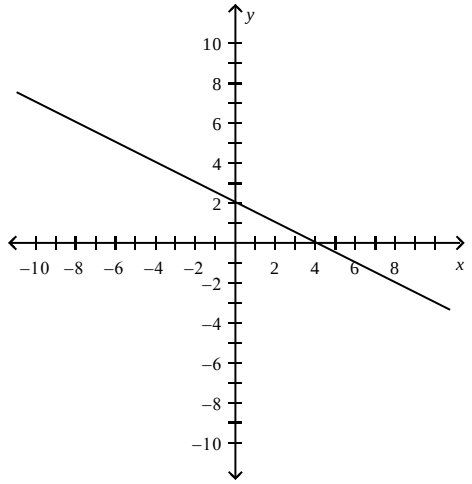
18)In slope-intercept form, write the equation of the line that contains the points in the table.

x	−2	0	2	4	6
y	−3	1	5	9	13

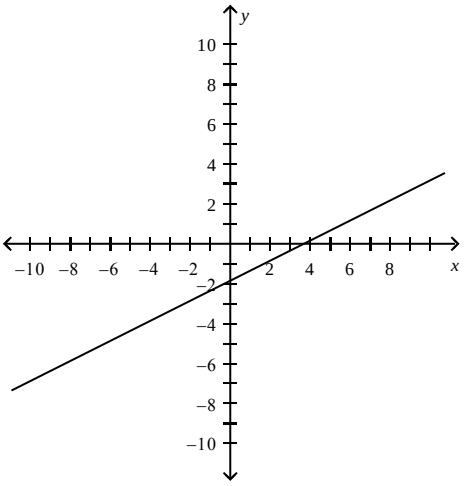
A $y = 2x + 1$ B $y = x + 2$ C $y = 2x - 1$ D $y = -x - 2$

13)Write the function $-5x - 10y = 20$ in slope-intercept form. Then graph the function.

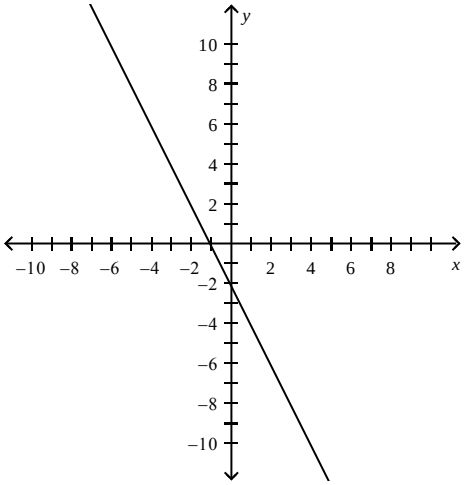
A $y = -\frac{1}{2}x - 2$



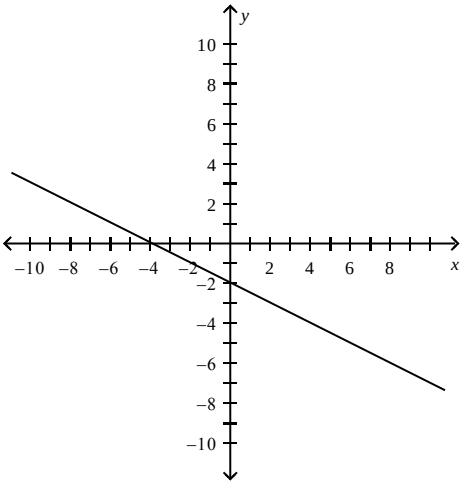
C $y = -\frac{1}{2}x - 2$



B $y = -\frac{1}{2}x - 2$

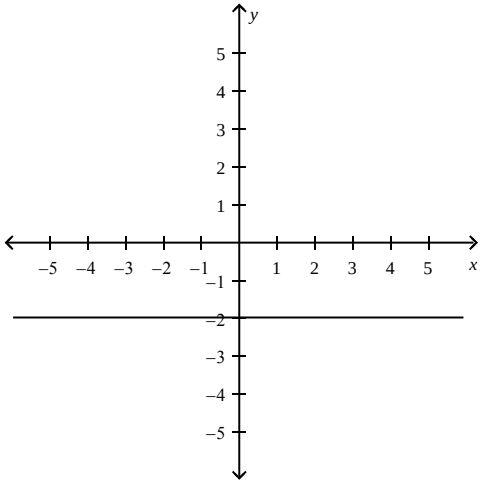


D $y = -\frac{1}{2}x - 2$

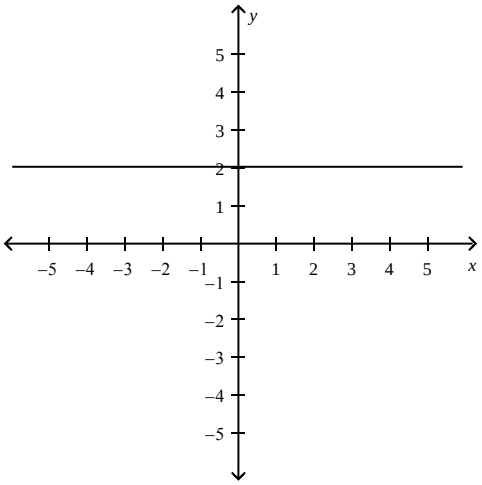


14) Determine if $x = -2$ is vertical or horizontal. Then graph.

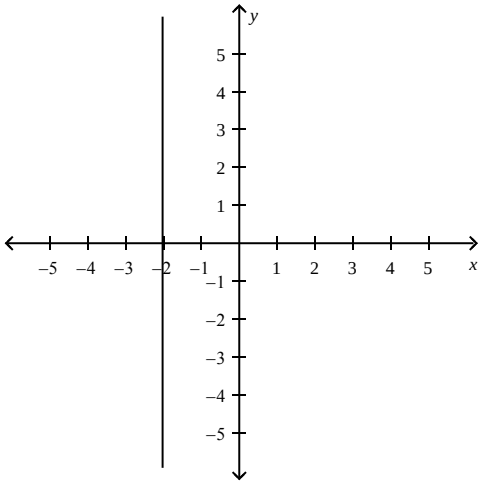
A The line is horizontal.



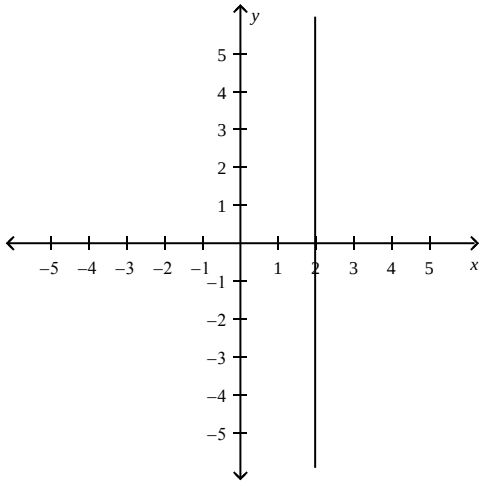
C The line is horizontal.



B The line is vertical.

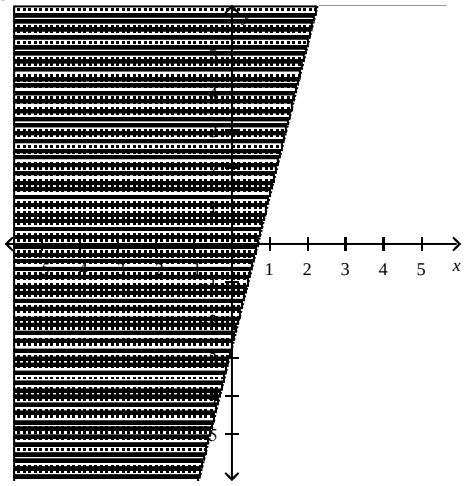


D The line is vertical.

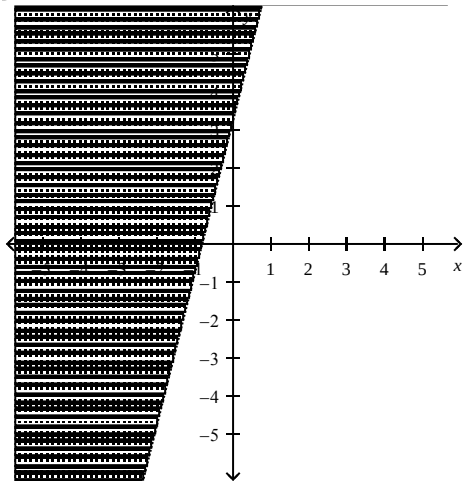


15) Solve $\frac{2}{3}(4x-y) < 2$ for y. Graph the solution.

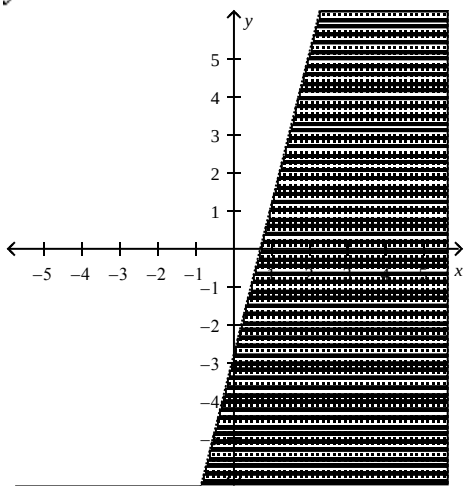
A $y > 4x - 3$



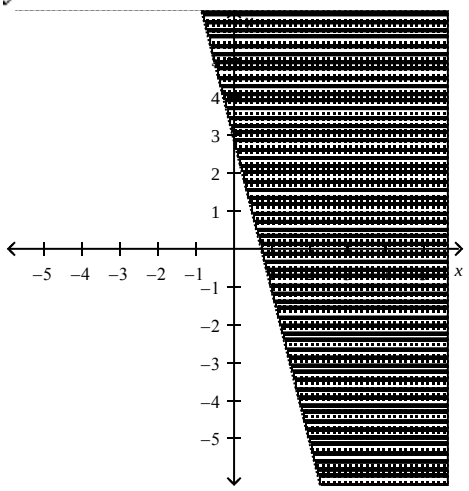
C $y > 4x + 3$



B $y < 4x - 3$



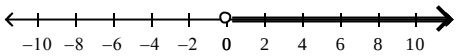
D $y > -4x + 3$



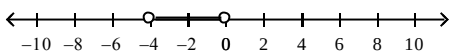
16) Let $g(x)$ be the transformation, vertical translation 5 units down, of $f(x) = 3x + 9$. Write the rule for $g(x)$.
A $g(x) = 3x + 4$ B $g(x) = 5x + 9$ C $g(x) = 3x + 9$ D $g(x) = 3x - 5$

17) Solve the inequality $|10 + 5x| > 10$ and graph the solution set.

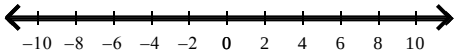
A $(0, \infty)$



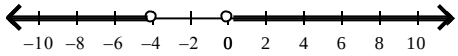
C $(-4, 0)$



B $(-\infty, \infty)$



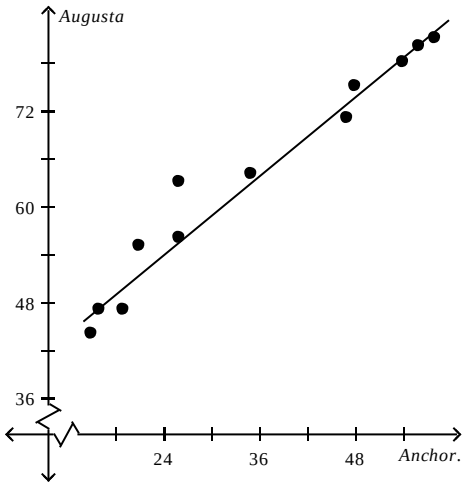
D $(-\infty, -4) \cup (0, \infty)$



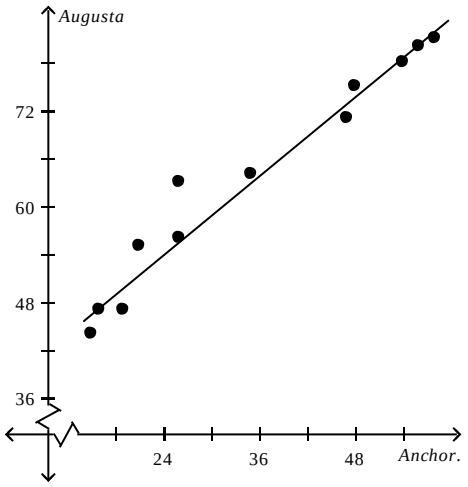
19) Anchorage, Alaska and Augusta, Georgia have very different average temperatures. This is a table of the average monthly temperature in each city. Make a scatter plot for the temperature data, identify the correlation, and then sketch a line of best fit and find its equation.

Average Temperatures (ºF)												
	Jan	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**
Anchorage	15	19	26	26	47	54	58	56	48	35	21	16
Augusta	44	47	56	63	71	78	81	80	75	64	55	47

A Positive correlation
$y = 0.825x + 33.8$



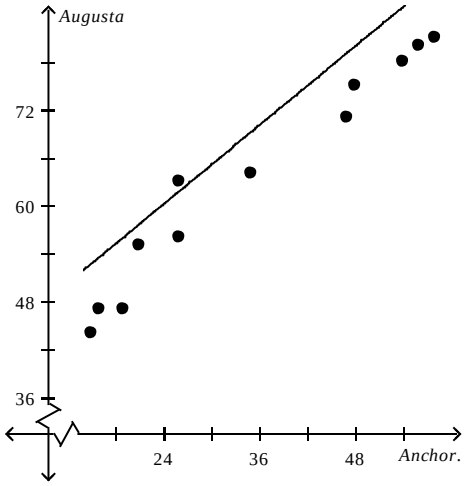
C Negative correlation
$y = 0.825x + 33.8$



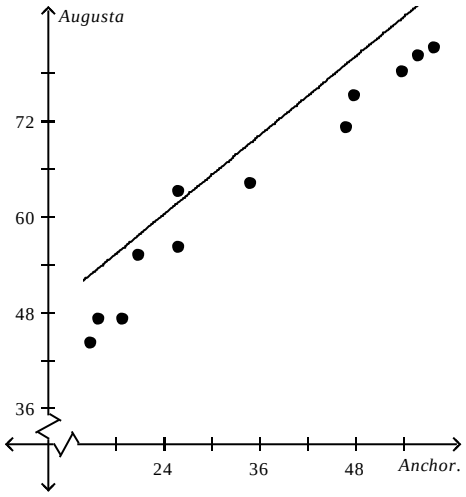
B Positive correlation

D Negative correlation

$y = 0.825x + 40.1$

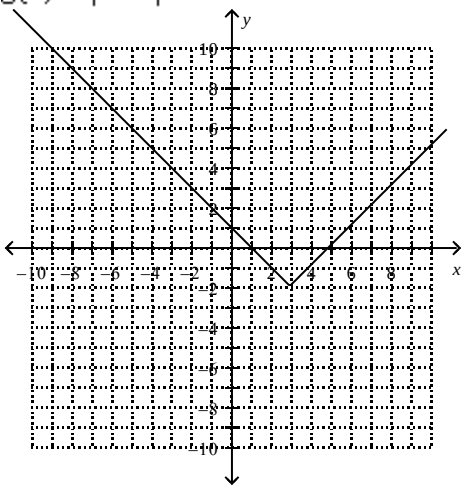


$y = 0.825x + 40.1$

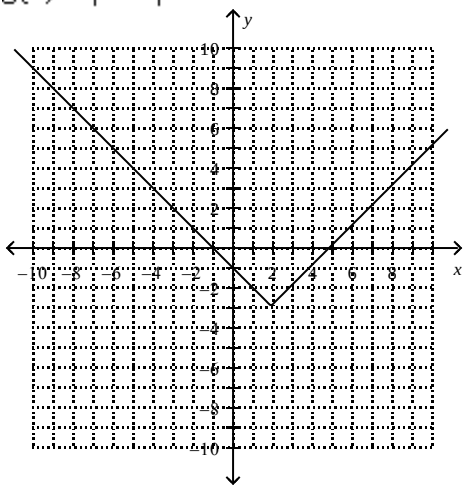


20) Translate $f(x) = |x|$ so that the vertex is at (–3, 2). Then graph.

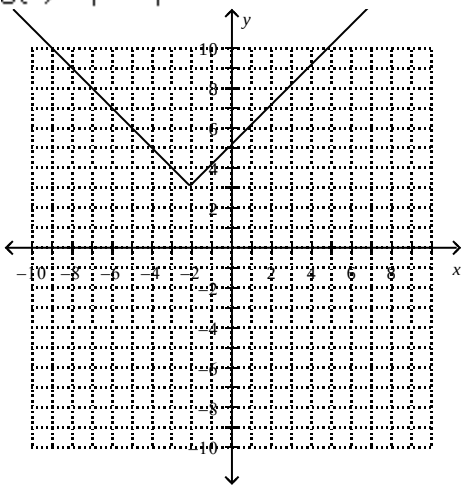
A $g(x) = |x - 3| - 2$



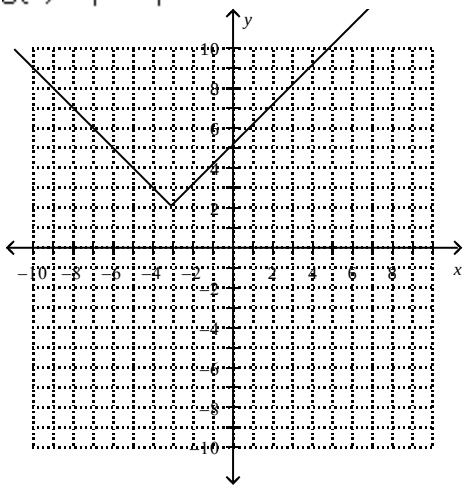
C $g(x) = |x - 2| - 3$



B $g(x) = |x + 2| + 3$



D $g(x) = |x + 3| + 2$



21) Classify the system $\begin{cases} 7x - 8y = -1 \\ 35x - 40y = -8 \end{cases}$, and determine the number of solutions.

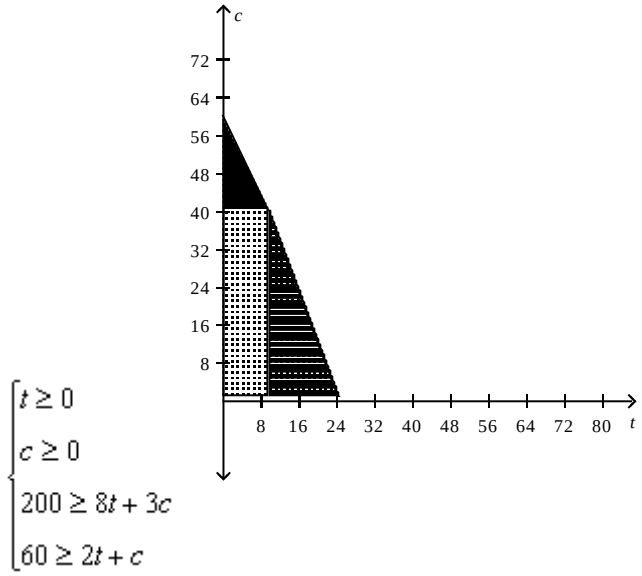
A This system is inconsistent. It has infinitely many solutions. B This system is consistent. It has infinitely many solutions. C This system is inconsistent. It has no solutions. D This system is consistent. It has one solution.

22) Two snow resorts offer private lessons to their customers. Big Time Ski Mountain charges $5 per hour plus $50 insurance. Powder Hills charges $10 per hour plus $30 insurance. For what number of hours is the cost of lessons the same for each resort?

A 3 hours B 4 hours C 5 hours D 6 hours

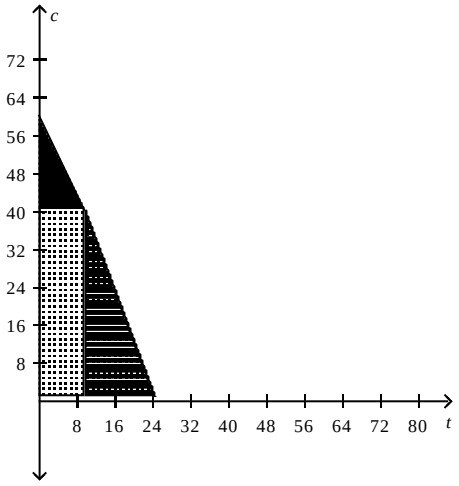
23) A shop makes tables and chairs. Each table takes 8 hours to assemble and 2 hours to finish. Each chair takes 3 hours to assemble and 1 hour to finish. The assemblers can work for at most 200 hours each week, and the finishers can work for at most 60 hours each week. The shop wants to make as many tables and chairs as possible. Write the constraints for the problem, and graph the feasible region. Let t be the number of tables and c be the number of chairs.

A

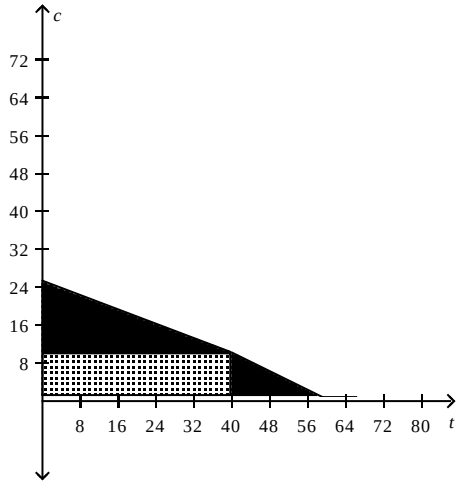


$\begin{cases} t \geq 0 \\ c \geq 0 \\ 200 \geq 8t + 3c \\ 60 \geq 2t + c \end{cases}$

C $\begin{cases} t \geq 0 \\ c \geq 0 \\ 200 \leq 8t + 3c \\ 60 \leq 2t + c \end{cases}$

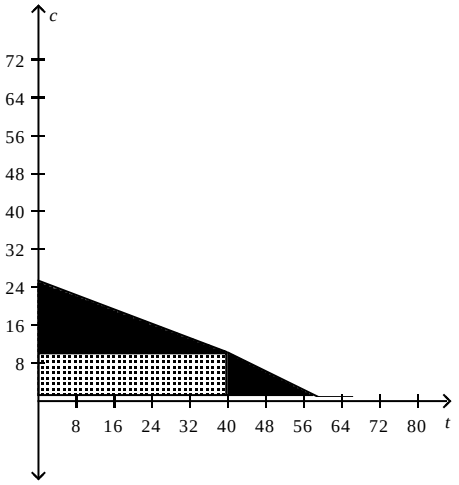


B



$$\begin{cases} t \geq 0 \\ c \geq 0 \\ 200 \geq 8t + 3c \\ 60 \geq 2t + c \end{cases}$$

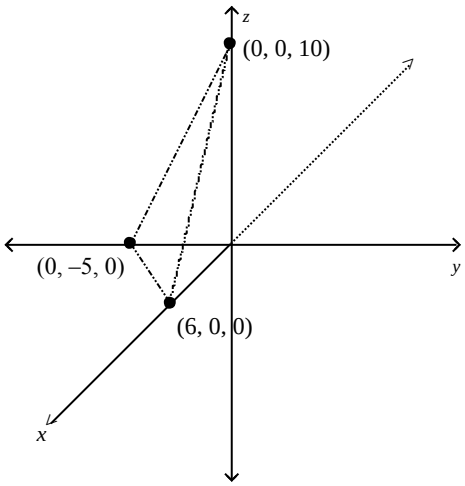
D



$$\begin{cases} t \geq 0 \\ c \geq 0 \\ 200 \leq 8t + 3c \\ 60 \leq 2t + c \end{cases}$$

24) Graph the linear equation $6x - 5y + 10z = 30$ in three-dimensional space.

A



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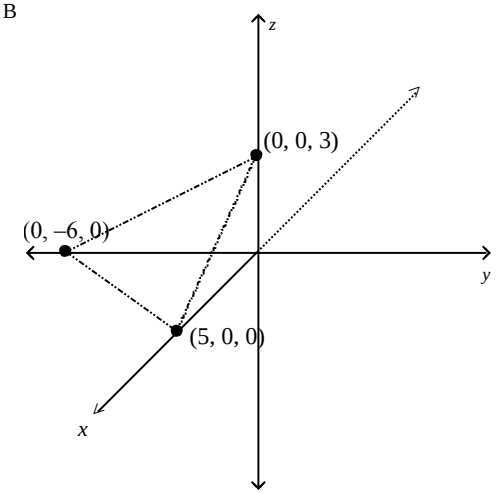

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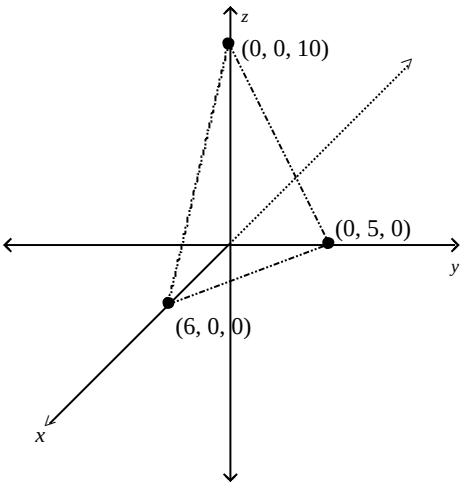

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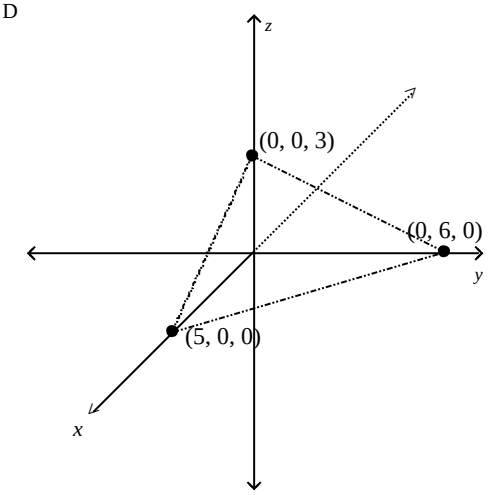
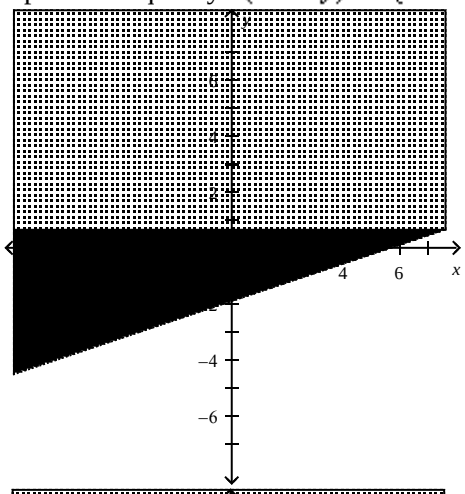
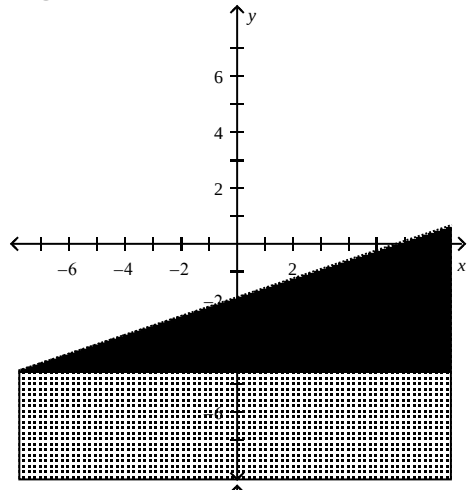


25) Graph the inequality $5(5x - 4y) < 3(2 + 8x) - 17y$.

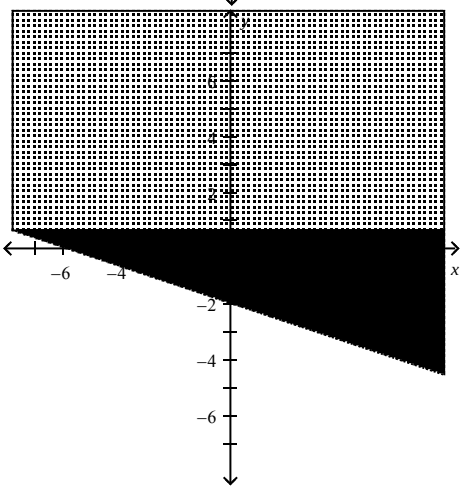
A



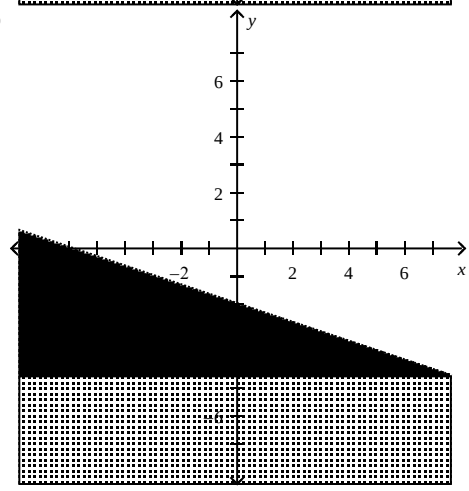
B



C

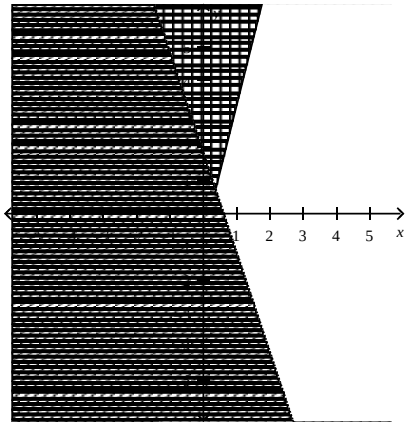


D

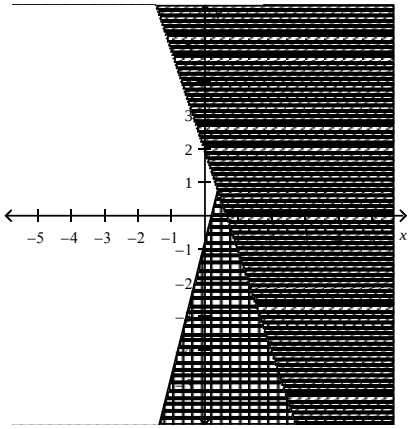


26) Graph the system of inequalities $\begin{cases} y < -3x + 2 \\ y \geq 4x - 1 \end{cases}$.

A



B



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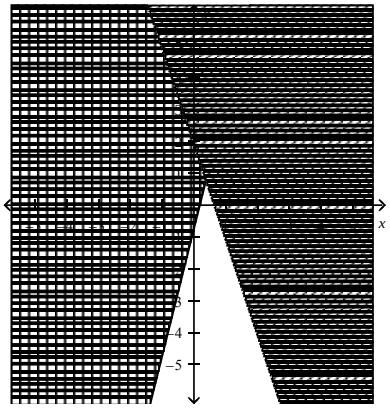

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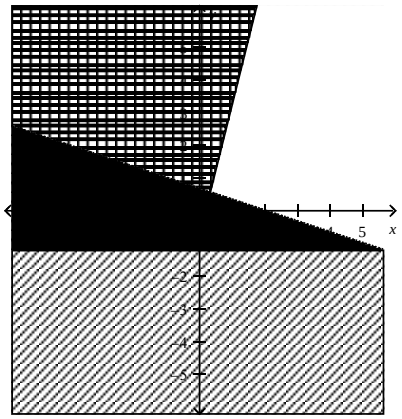
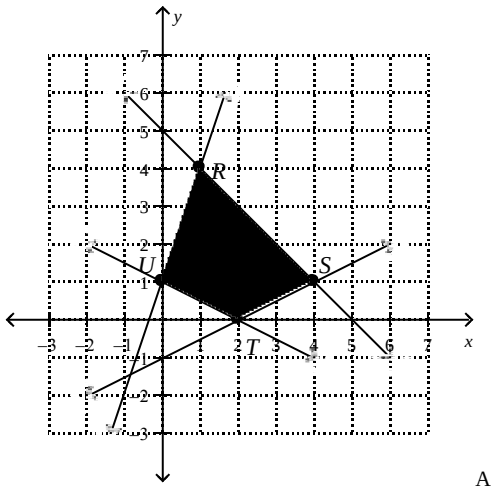


27) Which point gives the minimum value of $P = 3x - 2y$ in the feasible region shown?



A $S(4, 1)$ B $R(1, 4)$ C $T(2, 0)$ D $U(0, 1)$

28) Use substitution to determine if (0, 2) is an element of the solution set for the system of equations.
$\begin{cases} x + 3y = 6 \\ -x + y = 8 \end{cases}$
A (0, 2) is not a solution of the system. B (0, 2) is a solution of the system.

29) Use elimination to solve the system $\begin{cases} -3x + 5y = 10 \\ 7x - 5y = -10 \end{cases}$.
A (2, 0) B (10, 8) C (–5, –1) D (0, 2)

30) Classify the system $\begin{cases} 3x - 3y + 3z = 0 \\ 5x + y - 6z = -17 \\ 6x - 6y + 9z = 3 \end{cases}$ as consistent or inconsistent, and determine the number of solutions.
A Consistent. Infinitely many solutions. B Consistent. One solution. C Inconsistent. No solutions.
D Inconsistent. Infinitely many solutions.

31) Evaluate $3B - 2C$, if possible.
$B = \begin{bmatrix} 2 & 7 \\ 8 & -6 \end{bmatrix}$ $C = \begin{bmatrix} 0 & 1 \\ 4 & -2 \end{bmatrix}$
A $\begin{bmatrix} 0 & -2 \\ -8 & 4 \end{bmatrix}$ B Not possible C $\begin{bmatrix} 6 & 19 \\ 16 & -14 \end{bmatrix}$ D $\begin{bmatrix} 6 & 21 \\ 24 & -18 \end{bmatrix}$

32) Tell whether the product of $P_{8\times5}$ and $Q_{5\times7}$ is defined. If so, give the dimensions of PQ.
A defined; 8×7 B undefined C defined; 5×5 D defined; 7×8

33) Find the product AB, if possible.
$A = \begin{bmatrix} 3 & 9 \\ 2 & 3 \\ -3 & 0 \end{bmatrix}$ $B = \begin{bmatrix} 9 & 0 & -4 \\ 2 & 6 & 4 \end{bmatrix}$
A $\begin{bmatrix} 45 & 24 & -27 \\ 54 & 18 & 0 \\ 24 & 4 & 12 \end{bmatrix}$ B $\begin{bmatrix} 39 & 81 \\ 6 & 36 \end{bmatrix}$ C Not possible D $\begin{bmatrix} 45 & 54 & 24 \\ 24 & 18 & 4 \\ -27 & 0 & 12 \end{bmatrix}$

34) Evaluate $\begin{bmatrix} 5 & -2 \\ 1 & 1 \end{bmatrix}^2$, if possible.

A $\begin{bmatrix} 25 & 4 \\ 1 & 1 \end{bmatrix}$ B $\begin{bmatrix} 10 & -4 \\ 2 & 2 \end{bmatrix}$ C $\begin{bmatrix} 23 & -12 \\ 6 & -1 \end{bmatrix}$ D Not possible

35) Find the determinant of the matrix $\begin{bmatrix} 4 & -2 \\ 5 & 0 \end{bmatrix}$.

A –10 B 10 C 20 D –8

36) Find the determinant of $A = \begin{bmatrix} 2 & -2 & 5 \\ 7 & 10 & -1 \\ 1 & -2 & 0 \end{bmatrix}$.

A 122 B –122 C 320 D –50

37) Find the inverse of the matrix $A = \begin{bmatrix} 3 & 4 \\ 2 & 5 \end{bmatrix}$, if it is defined.

A $\begin{bmatrix} \frac{5}{7} & \frac{-4}{7} \\ \frac{-2}{7} & \frac{3}{7} \end{bmatrix}$ B $\begin{bmatrix} \frac{1}{3} & \frac{1}{4} \\ \frac{1}{2} & \frac{1}{5} \end{bmatrix}$ C $\begin{bmatrix} \frac{3}{7} & \frac{4}{7} \\ \frac{2}{7} & \frac{5}{7} \end{bmatrix}$ D $\begin{bmatrix} 5 & -4 \\ -2 & 3 \end{bmatrix}$

38) Write the matrix equation for the system $\begin{cases} 3x + 2y = -10 \\ -7x - 5y = -5 \end{cases}$, and solve.

A $\begin{bmatrix} 3 & 2 \\ -7 & -5 \end{bmatrix}\begin{bmatrix} x \\ y \end{bmatrix} = \begin{bmatrix} -10 \\ -5 \end{bmatrix}$;
(–60, 85)

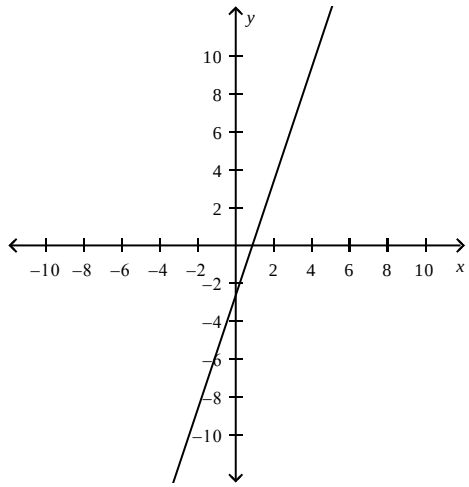
B $\begin{bmatrix} 3 & 2 \\ -7 & -5 \end{bmatrix}\begin{bmatrix} x \\ y \end{bmatrix} = \begin{bmatrix} -10 \\ -5 \end{bmatrix}$;
(–40, –55)

C $\begin{bmatrix} 3 & 2 \\ -7 & -5 \end{bmatrix}\begin{bmatrix} x \\ y \end{bmatrix} = \begin{bmatrix} -10 \\ -5 \end{bmatrix}$;
(–20, –45)

D $\begin{bmatrix} 3 & 2 \\ -7 & -5 \end{bmatrix}\begin{bmatrix} x \\ y \end{bmatrix} = \begin{bmatrix} -10 \\ -5 \end{bmatrix}$;
(–15, –5)

39) Graph $f(x) = x^2 + 3x - 3$.

A



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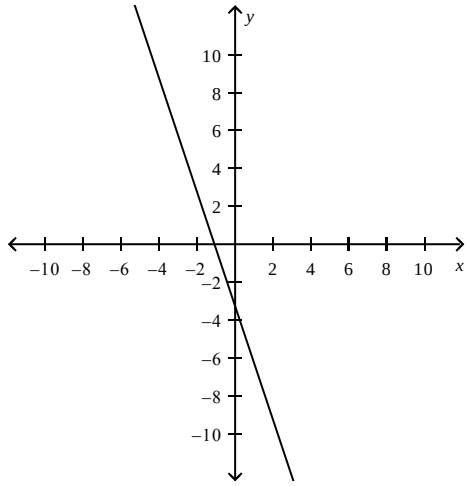

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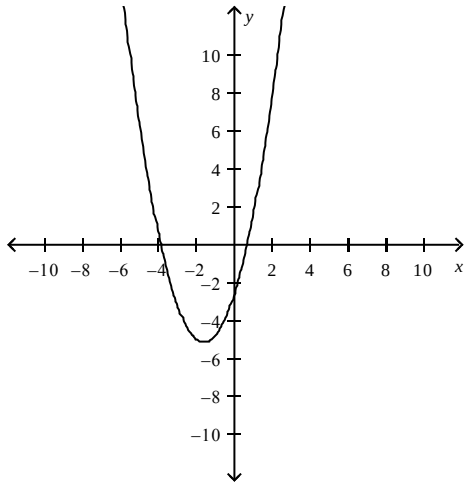
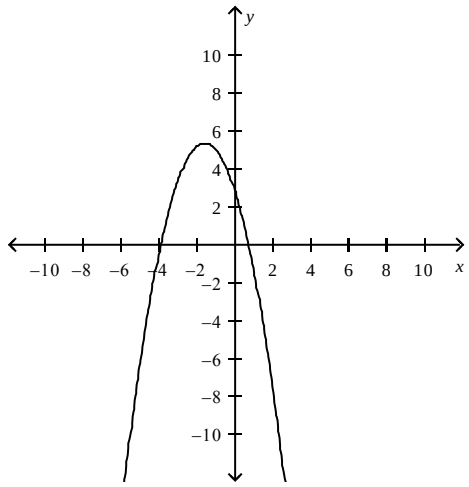
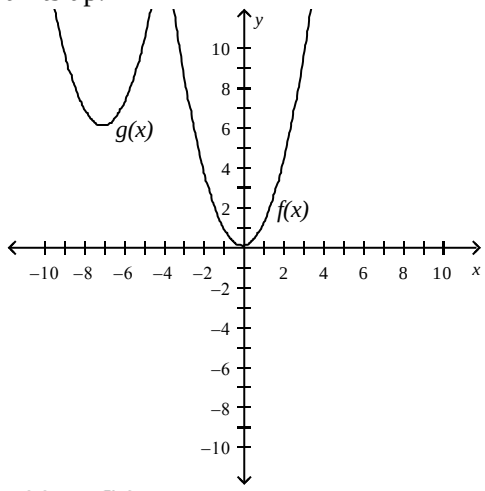


D

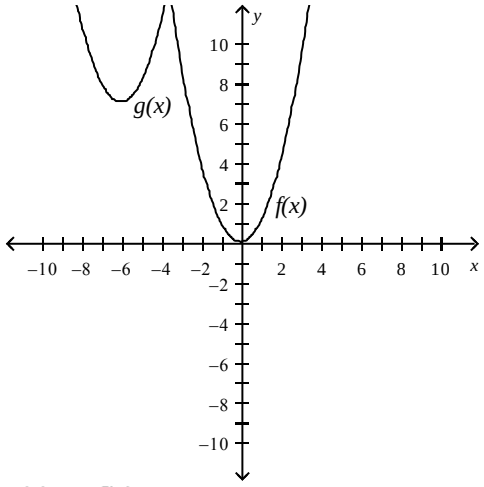


40) Using the graph of $f(x) = x^2$ as a guide, describe the transformations, and then graph the function $g(x) = (x + 6)^2 + 7$.

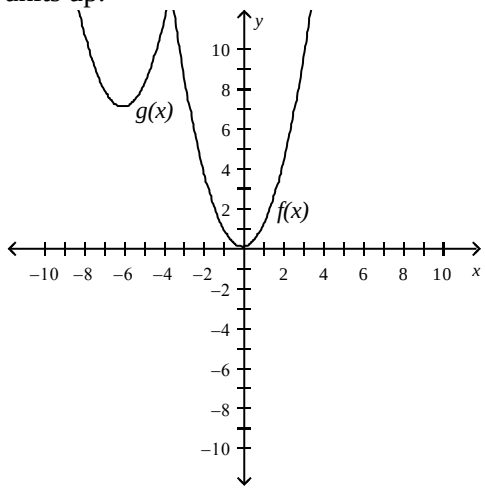
A $g(x)$ is $f(x)$ translated 7 units left and 6 units up.



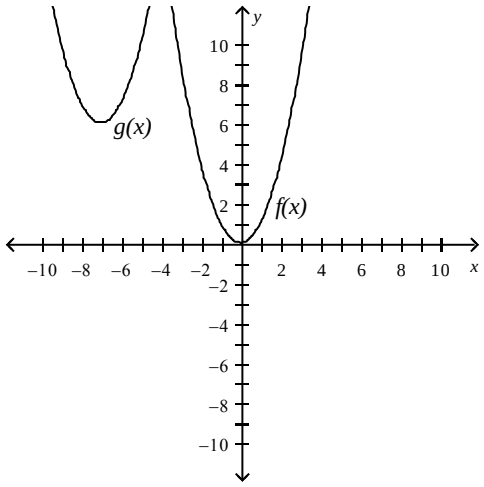
C $g(x)$ is $f(x)$ translated 6 units right and 7 units down.



B $g(x)$ is $f(x)$ translated 6 units left and 7 units up.



D $g(x)$ is $f(x)$ translated 7 units right and 6 units down.



41) The parent function $f(x) = x^2$ is reflected across the *x*-axis, vertically stretched by a factor of 7, and translated right 8 units to create *g*. Use the description to write the quadratic function in vertex form.

A $g(x) = 7(x - 8)^2$ B $g(x) = 8(x + 7)^2$ C $g(x) = -7(x - 8)^2$ D $g(x) = -7(x + 8)^2$

42) Solve the equation $x^2 = 48 - 2x$ by completing the square.

A $x = 7$ or $x = -7$ B $x = 12$ or $x = -16$ C $x = 6$ or $x = -8$ D $x = -6$ or $x = 8$

43) Write the function $f(x) = 3x^2 + 24x + 52$ in vertex form, and identify its vertex.

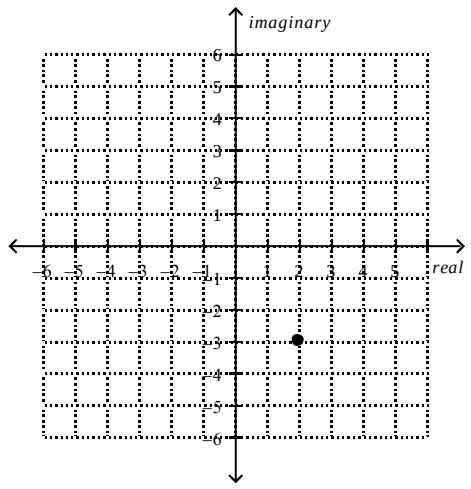
A $f(x) = 3(x + 4)^2 + 4$; vertex: (–4, 4)

B $f(x) = (x + 4)^2 + 4$; vertex: (–4, 4)

C $f(x) = (x + 8)^2 + 52$; vertex: (–8, 52)

D $f(x) = 3(x + 8)^2 + 52$; vertex: (–8, 52)

44) Solve the equation $2x^2 + 72 = 0$.
A $x = \pm 6 + i$ B $x = 6 \pm i$ C $x = \pm 6$ D $x = \pm 6i$

45) Graph the complex number $3 + 2i$.
A


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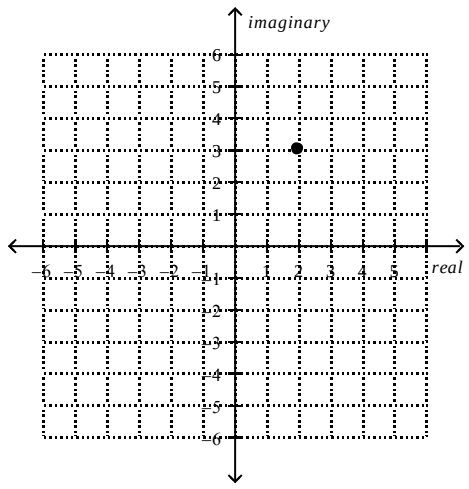

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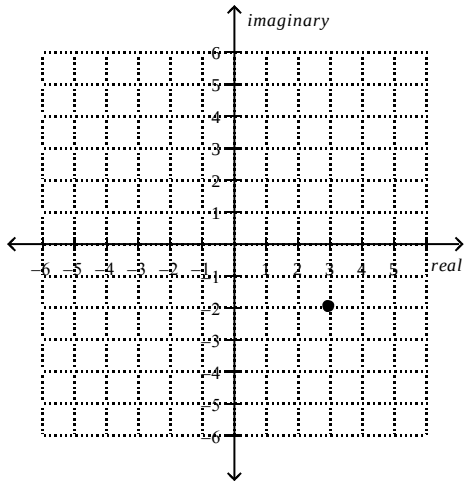

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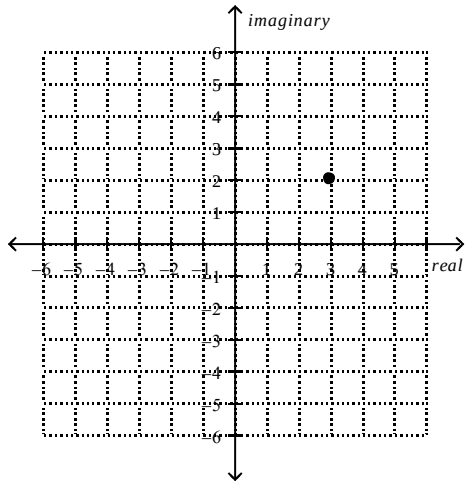


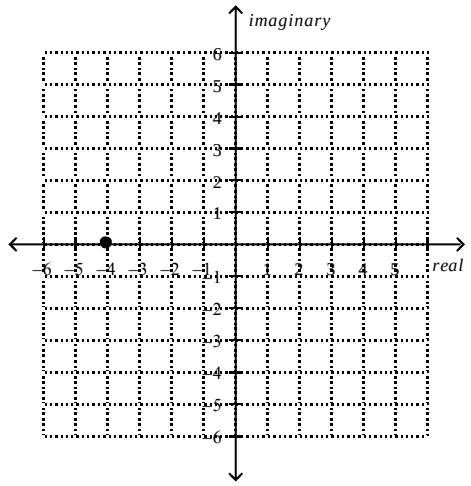
46) Write a quadratic function that fits the points (0, 7), (3, 4), and (4, 7).
A $f(x) = x^2 + 7x - 4$ B $f(x) = x^2 + 4x + 7$ C $f(x) = -4x^2 + x + 7$ D $f(x) = x^2 - 4x + 7$

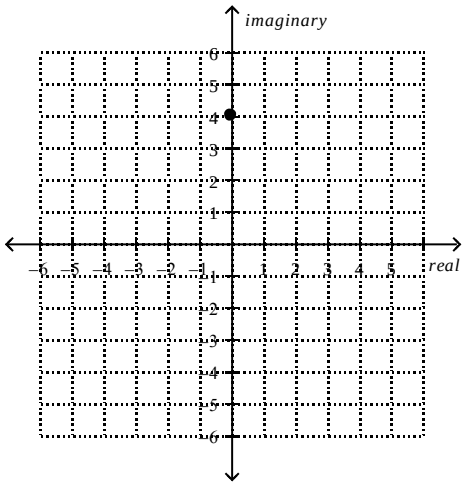
47) Find the zeros of $f(x) = 3x^2 - x + 2$ by using the Quadratic Formula.
A $x = \frac{1}{6} \pm \frac{23}{6}i$ B $x = \frac{1}{6} \pm \frac{\sqrt{25}}{6}i$ C $x = \frac{1}{2} \pm \frac{\sqrt{23}}{2}i$ D $x = \frac{1}{6} \pm \frac{\sqrt{23}}{6}i$

48) Find the number and type of solutions for $x^2 + 6x = -9$.
A Cannot determine without graphing. B The equation has one real solution. C The equation has two nonreal complex solutions. D The equation has two real solutions.

49) The perimeter of a right triangle is 40 ft, and one of its legs measures 8 ft. Find the length of the other leg and the hypotenuse.
A 15 ft, 17 ft B 12 ft, 20 ft C 14 ft, 18 ft D 13 ft, 19 ft

50) Solve the inequality $x^2 + 3x - 10 \le -12$ by using algebra.
A $x \le -2$ or $x \ge -1$ B $x \le -5$ or $x \ge 2$ C $-5 \le x \le 2$ D $-2 \le x \le -1$

51) Graph the complex number $4i$.
A


B


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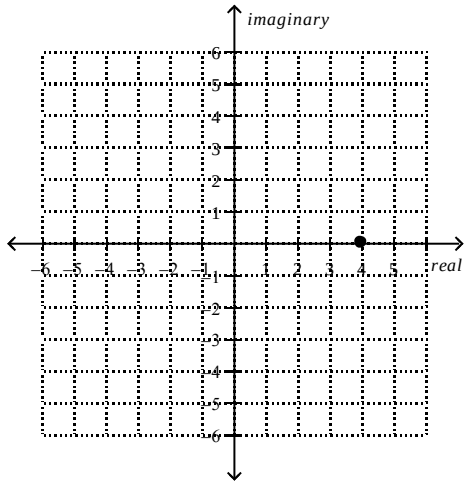

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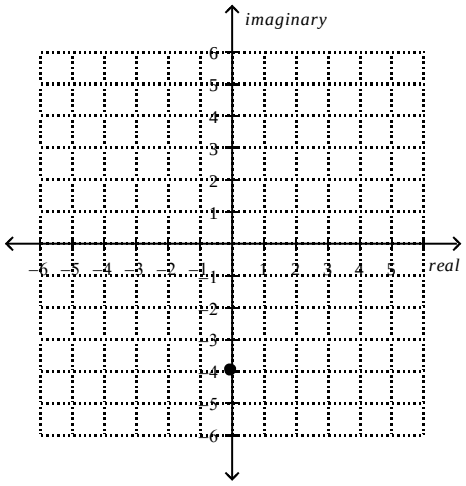


52) Find the absolute value $|-7 - 5i|$.
A -12 B $2\sqrt{3}$ C $2\sqrt{6}$ D $\sqrt{74}$

53) Add. Write the result in the form $a + bi$.
$(-8 - 9i) + (3 + 7i)$
A $-1 - 6i$ B $-11 - 16i$ C $-5 - 2i$ D $-17 + 10i$

54) Multiply $3i(4-2i)$. Write the result in the form $a+bi$.
A $6-12i$ B $-6+12i$ C $-6-12i$ D $6+12i$

55) Rewrite the polynomial $x^2 - 6 + 7x^4 - 8x^3 + 6x^5 - 16x$ in standard form. Then, identify the leading coefficient, degree, and number of terms. Name the polynomial.
A $6x^5+7x^4+x^3-8x^2-16x-6$
leading coefficient: 6; degree: 5; number of terms: 6; name: quintic polynomial
B $-6-16x+x^2+7x^3-8x^4+6x^5$
leading coefficient: –6; degree: 0; number of terms: 6; name: quintic polynomial
C $-6-16x+x^2-8x^3+7x^4+6x^5$
leading coefficient: –6; degree: 0; number of terms: 6; name: quintic polynomial
D $6x^5+7x^4-8x^3+x^2-16x-6$
leading coefficient: 6; degree: 5; number of terms: 6; name: quintic polynomial

56) Find the product $-2r^5(-r^4s^5+4s^2)$.
A $-3r^9s^5+2r^5s^2$ B $2r^{20}-8$ C $2r^9s^5-8r^5s^2$ D $-2r^{10}s^6-2r^6s^3$

57) Find the product $(3x-4y)^3$.
A $27x^3+108x^2y+144xy^2+64y^3$ B $27x^3+64y^3$ C $27x^3-64y^3$ D $27x^3-108x^2y+144xy^2-64y^3$

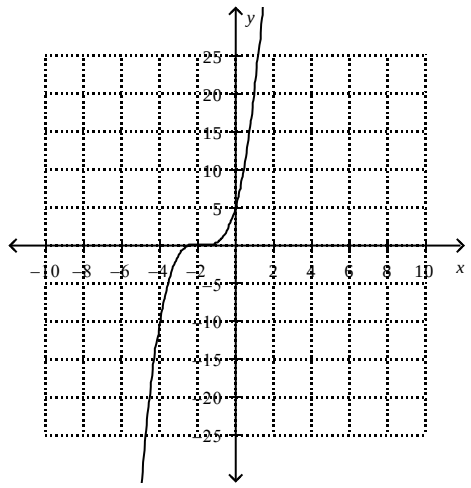
58) Use Pascal's Triangle to expand the expression $(6x-3)^4$.
A $1296x^4-1944x^3+972x^2-162x+81$ B $1296x^4-2592x^3+1944x^2-648x+81$
C $1296x^4-648x^3+324x^2-162x+81$ D $104976x^4-23328x^3+1944x^2-72x-3$

59) Divide by using synthetic division.
$(6x^2-9x+8)\div(x-2)$
A $6x+3+\frac{14}{x-2}$ B $6x-21+\frac{50}{x-2}$ C $6x-6+\frac{5}{x-2}$ D $12x-18+\frac{8}{x-2}$

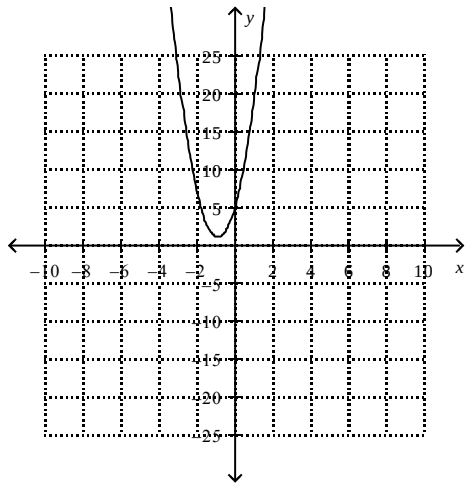
60) Use synthetic substitution to evaluate the polynomial $P(x)=x^3-4x^2+2x-9$ for $x=4$.
A $P(4)=-65$ B $P(4)=-1$ C $P(4)=145$ D $P(4)=-145$

61) Graph the function $f(x)=x^3+5x^2+8x+4$.

A



B



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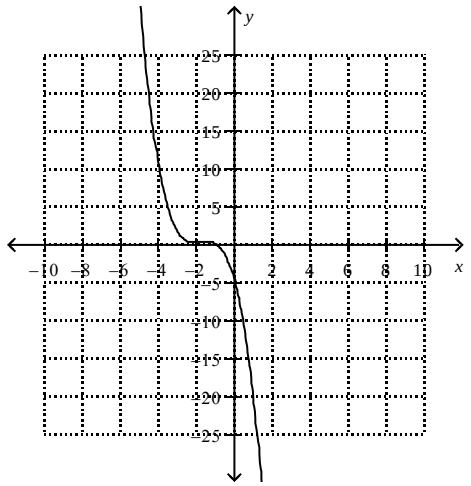
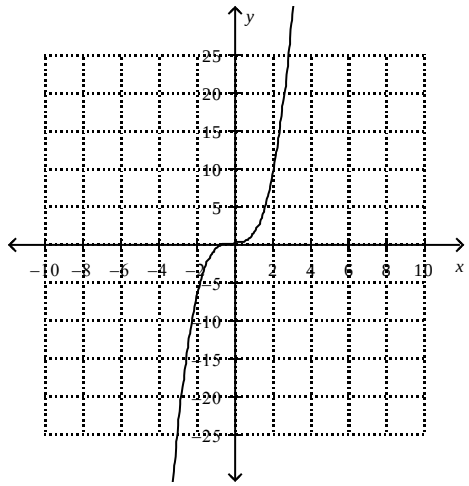


D



62) Add. Write your answer in standard form.
$(2b^5 - b) + (b^5 + 8b - 1)$
A $3b^5 + 7b - 1$ B $3b^{10} + 7b^2 - 1$ C $2b^5 + 8b - 1$ D $3b^5 + 7b$

63) For $h(x) = 2x^2 + 6x - 9$ and $k(x) = 3x^2 - 8x + 8$, find $h(x) - 2k(x)$.
A $-4x^2 + 22x - 25$ B $-4x^2 - 14x + 17$ C $-4x^2 + 14x - 17$ D $-4x^2 - 22x + 25$

64) Determine whether the binomial $(x - 4)$ is a factor of the polynomial $P(x) = 5x^3 - 20x^2 - 5x + 20$.
A $(x - 4)$ is not a factor of the polynomial $P(x) = 5x^3 - 20x^2 - 5x + 20$. B $(x - 4)$ is a factor of the polynomial $P(x) = 5x^3 - 20x^2 - 5x + 20$. C Cannot determine.

65) Factor $x^3 + 5x^2 - 9x - 45$.
A $(x - 5)(x^2 + 9)$ B $(x - 5)(x - 3)(x + 3)$ C $(x + 5)(x - 3)(x + 3)$ D $(x + 5)(x^2 + 9)$

66) Identify all of the real roots of $4x^4 + 31x^3 - 4x^2 - 89x + 22 = 0$.

A -2 and $\frac{1}{4}$ B $-2, \frac{1}{4}, -3 + 2\sqrt{5}, -3 - 2\sqrt{5}$ C $\pm 1, \pm\frac{1}{2}, \pm\frac{1}{4}, \pm 2, \pm 11, \pm\frac{11}{2}, \pm\frac{11}{4}$

D $-2, \frac{1}{4}, 3 + 2\sqrt{5}, 3 - 2\sqrt{5}$

67) Write the simplest polynomial function with the zeros $2 - i$, $\sqrt{5}$, and -2.

A $P(x) = x^5 - 2x^4 - 8x^3 + 20x^2 + 15x - 50 = 0$ B $P(x) = x^5 - 2x^4 - 10x^3 + 16x^2 + 25x - 30 = 0$

C $P(x) = x^5 - 2x^4 - 8x^3 - 20x^2 - 65x - 50 = 0$ D $P(x) = x^6 - 4x^5 - 4x^4 + 36x^3 - 25x^2 - 80x + 100 = 0$

Algebra 2 Midterm Review
Answer Section

MULTIPLE CHOICE

1) ANS: C REF: Page 9 OBJ: 1-1.3 Translating Between Methods of Set Notation
2) ANS: C REF: Page 14 OBJ: 1-2.1 Finding Inverses
3) ANS: B REF: Page 15 OBJ: 1-2.2 Identifying Properties of Real Numbers
4) ANS: C REF: Page 23 OBJ: 1-3.3 Rationalizing the Denominator
5) ANS: B REF: Page 28 OBJ: 1-4.3 Simplifying Expressions
6) ANS: C REF: Page 35 OBJ: 1-5.2 Simplifying Expressions with Negative Exponents
7) ANS: B REF: Page 36
OBJ: 1-5.3 Using Properties of Exponents to Simplify Expressions
8) ANS: A REF: Page 36
OBJ: 1-5.4 Simplifying Expressions Involving Scientific Notation
9) ANS: D REF: Page 53 OBJ: 1-7.3 Application
10) ANS: D REF: Page 105 OBJ: 2-3.1 Recognizing Linear Functions
11) ANS: A REF: Page 106 OBJ: 2-3.2 Graphing Lines Using Slope and a Point
12) ANS: D REF: Page 106 OBJ: 2-3.3 Graphing Lines Using the Intercepts
18) ANS: A REF: Page 117 OBJ: 2-4.3 Writing Equations of Lines
13) ANS: D REF: Page 107 OBJ: 2-3.4 Graphing Functions in Slope-Intercept Form
14) ANS: B REF: Page 108 OBJ: 2-3.5 Graphing Vertical and Horizontal Lines
15) ANS: A REF: Page 127 OBJ: 2-5.4 Solving and Graphing Linear Inequalities
16) ANS: A REF: Page 134 OBJ: 2-6.1 Translating and Reflecting Linear Functions
17) ANS: D REF: Page 152
OBJ: 2-8.3 Solving Absolute-Value Inequalities with Disjunctions
19) ANS: A REF: Page 142 OBJ: 2-7.1 Application
20) ANS: D REF: Page 159 OBJ: 2-9.2 Translations of an Absolute-Value Function
21) ANS: C REF: Page 184 OBJ: 3-1.3 Classifying Linear Systems
22) ANS: B REF: Page 185 OBJ: 3-1.4 Application
23) ANS: A REF: Page 205 OBJ: 3-4.1 Graphing a Feasible Region
24) ANS: B REF: Page 215 OBJ: 3-5.2 Graphing Linear Equations in Three Dimensions
25) ANS: A
26) ANS: A REF: Page 199 OBJ: 3-3.1 Graphing Systems of Inequalities
27) ANS: B
28) ANS: A REF: Page 182 OBJ: 3-1.1 Verifying Solutions of Linear Systems
29) ANS: D REF: Page 191 OBJ: 3-2.2 Solving Linear Systems by Elimination
30) ANS: B REF: Page 223
OBJ: 3-6.3 Classifying Systems with Infinitely Many Solutions or No Solution
31) ANS: C REF: Page 248 OBJ: 4-1.4 Simplifying Matrix Expressions
32) ANS: A REF: Page 253 OBJ: 4-2.1 Identifying Matrix Products
33) ANS: D REF: Page 254 OBJ: 4-2.2 Finding the Matrix Product
34) ANS: C REF: Page 256 OBJ: 4-2.4 Finding Powers of Square Matrices
35) ANS: B REF: Page 270 OBJ: 4-4.1 Finding the Determinant of a 2 x 2 Matrix
36) ANS: B REF: Page 272 OBJ: 4-4.3 Finding the Determinant of a 3 x 3 Matrix

37) ANS: A REF: Page 279 OBJ: 4-5.2 Finding the Inverse of a 2 x 2 Matrix
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67) ANS: A REF: Page 447 OBJ: 6-6.3 Writing a Polynomial Function with Complex Zeros