

Name _____

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MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

Multiply.

- 1) $-16(3)$ 1) _____
A) -48 B) -32 C) -51 D) 32

Objective: (2.4) Multiply Integers

- 2) $-8(-8)$ 2) _____
A) 64 B) -72 C) 72 D) -64

Objective: (2.4) Multiply Integers

Divide, if possible. If a quotient is undefined, state so.

- 3) $\frac{-18}{3}$ 3) _____
A) -7 B) -6 C) -5 D) 6

Objective: (2.4) Divide Integers

- 4) $\frac{-14}{-2}$ 4) _____
A) -8 B) 7 C) -7 D) -6

Objective: (2.4) Divide Integers

Find the mean for the list of numbers.

- 5) Ages of patients (in years) in a clinic: 18, 2, 29, 18 5) _____
Round answer to the nearest whole number if necessary.
A) 18 years B) 17 years C) 16 years D) 2 year(s)

Objective: (7.3) Find the Mean of a Set of Numbers

- 6) Monthly checking account fees: \$17, \$10, \$6, \$11, \$6, \$4, \$4 6) _____
Round answer to the nearest whole number if necessary.
A) \$11 B) \$4 C) \$8 D) \$7

Objective: (7.3) Find the Mean of a Set of Numbers

- 7) Annual sales bonuses: \$1450, \$4460, \$6940, \$7240, \$1880, \$6250 7) _____
Round answer to the nearest whole number if necessary.
A) \$7240 B) \$6940 C) \$4703 D) \$4702

Objective: (7.3) Find the Mean of a Set of Numbers

Find the median for the data given.

8) Number of steaks served: 2, 10, 18, 24, 43, 44, 49

A) 27 steaks

B) 43 steaks

C) 24 steaks

D) 18 steaks

8) _____

Objective: (7.3) Find the Median of a Set of Numbers

Determine whether the ordered pair satisfies the equation.

9) $5x + 2y = 26$; (4, 3)

A) Yes

B) No

9) _____

Objective: (7.4) Determine Whether an Ordered Pair Satisfies an Equation in Two Variables

Determine if the given value is a solution to the equation. Answer Yes or No.

10) $8x - 10 = 15$; $x = 3$

A) No

B) Yes

10) _____

Objective: (8.2) Determine If a Number Is a Solution of an Equation

Solve the equation using the Multiplication Property of Equality.

11) $-2x = -12$

A) {6}

B) {-10}

C) {2}

D) {10}

11) _____

Objective: (8.2) Use the Multiplication Property of Equality to Solve Linear Equations

Solve the equation. Check your solution.

12) $3r + 6 = 30$

A) {25}

B) {21}

C) {8}

D) {4}

12) _____

Objective: (8.3) Apply the Addition and the Multiplication Properties of Equality to Solve Linear Equations

13) $43 = -6x - 5$

A) {2}

B) {58}

C) {54}

D) {-8}

13) _____

Objective: (8.3) Apply the Addition and the Multiplication Properties of Equality to Solve Linear Equations

14) $-7x - 11 + 8x = -4$

A) {15}

B) {7}

C) {-15}

D) {-7}

14) _____

Objective: (8.3) Combine Like Terms and Apply the Distributive Property to Solve Linear Equations

15) $5x - (2x - 1) = 2$

A) $\left\{-\frac{1}{3}\right\}$

B) $\left\{-\frac{1}{7}\right\}$

C) $\left\{\frac{1}{3}\right\}$

D) $\left\{\frac{1}{7}\right\}$

15) _____

Objective: (8.3) Combine Like Terms and Apply the Distributive Property to Solve Linear Equations

16) $-7x - 7 = 1 + 9x$

A) $\left\{-\frac{1}{3}\right\}$

B) $\{-2\}$

C) $\{2\}$

D) $\left\{-\frac{1}{2}\right\}$

16) _____

Objective: (8.3) Solve a Linear Equation with the Variable on Both Sides of the Equation

17) $3x - 8 = 4(x + 1)$

A) {12}

B) {-4}

C) {-12}

D) {4}

17) _____

Objective: (8.3) Solve a Linear Equation with the Variable on Both Sides of the Equation

$$18) \frac{5x}{2} + 3 = \frac{1}{7} \quad 18) \underline{\hspace{2cm}}$$

- A) $\left\{\frac{2}{5}\right\}$ B) $\left\{-\frac{8}{7}\right\}$ C) $\left\{-\frac{41}{35}\right\}$ D) $\left\{\frac{33}{35}\right\}$

Objective: (8.4) Use the Least Common Denominator to Solve a Linear Equation Containing Fractions

$$19) \frac{13}{10}x + \frac{6}{5} = \frac{6}{5}x \quad 19) \underline{\hspace{2cm}}$$

- A) {12} B) {24} C) {-24} D) {-12}

Objective: (8.4) Use the Least Common Denominator to Solve a Linear Equation Containing Fractions

$$20) \frac{r+6}{5} = \frac{r+8}{7} \quad 20) \underline{\hspace{2cm}}$$

- A) {1} B) {-2} C) {-1} D) {2}

Objective: (8.4) Use the Least Common Denominator to Solve a Linear Equation Containing Fractions

$$21) -46.8 = -5.2x \quad 21) \underline{\hspace{2cm}}$$

- A) {2} B) {9} C) {-41.6} D) {41.6}

Objective: (8.4) Solve a Linear Equation Containing Decimals

$$22) x + 7.1x = 234.9 \quad 22) \underline{\hspace{2cm}}$$

- A) {2.9} B) {30} C) {36.1} D) {29}

Objective: (8.4) Solve a Linear Equation Containing Decimals

$$23) -0.03(30) + 0.50x = 0.30(30 + x) \quad 23) \underline{\hspace{2cm}}$$

- A) {25} B) {40} C) {60} D) {50}

Objective: (8.4) Solve a Linear Equation Containing Decimals

Solve the equation. State whether the equation is a contradiction, an identity, or a conditional equation.

$$24) -7x + 5 + 5x = -2x + 10 \quad 24) \underline{\hspace{2cm}}$$

- A) $\emptyset$ or { }; contradiction B) {-5}; conditional equation
C) {5}; conditional equation D) all real numbers; identity

Objective: (8.4) Classify a Linear Equation as an Identity, Conditional, or a Contradiction

$$25) 2(x + 3) = (2x + 6) \quad 25) \underline{\hspace{2cm}}$$

- A) $\emptyset$ or { }; contradiction B) {0}; conditional equation
C) all real numbers; identity D) {12}; conditional equation

Objective: (8.4) Classify a Linear Equation as an Identity, Conditional, or a Contradiction

$$26) \frac{x}{2} + \frac{1}{6} = \frac{6x+2}{12} \quad 26) \underline{\hspace{2cm}}$$

- A) $\left\{\frac{1}{3}\right\}$; conditional equation B) all real numbers; identity
C) $\left\{-\frac{1}{3}\right\}$; conditional equation D) $\emptyset$ or { }; contradiction

Objective: (8.4) Classify a Linear Equation as an Identity, Conditional, or a Contradiction

Substitute the given values into the formula and then evaluate to find the unknown quantity. Label units in your answer. If the answer is not exact, round your answer to the nearest hundredth.

27) $P = 2L + 2W$; $P = 28$, $W = 9$

A) 14 units

B) 5 units

C) 9.5 units

D) 19 units

27) _____

Objective: (8.5) Evaluate a Formula

28) $V = \frac{1}{3}Bh$; $V = 48$, $h = 8$

A) 18 units

B) 6 units

C) 384 units

D) 56 units

28) _____

Objective: (8.5) Evaluate a Formula

29) $I = prt$; $I = 44.8$, $p = 160$, $r = 0.04$

A) 286.72 units

B) 0.7 units

C) 2.8672 units

D) 7 units

29) _____

Objective: (8.5) Evaluate a Formula

30) Use the formula $C = \frac{5}{9}(F - 32)$ to convert 167°F to degrees Celsius.

A) 110.6°C

B) 60.8°C

C) 332.6°C

D) 75°C

30) _____

Objective: (8.5) Evaluate a Formula

Solve the problem.

- 31) You have a cylindrical cooking pot whose radius is 6 inches and whose height is 7 inches. How many full cans of soup will fit into the pot if each can holds 10 cubic inches of soup? Use the formula $V = \pi r^2 h$ and 3.14 as an approximation for π .

A) 79 cans of soup

B) 26 cans of soup

C) 25 cans of soup

D) 80 cans of soup

31) _____

Objective: (8.5) Evaluate a Formula

- 32) The area of a circle with radius r is given by the formula $A = \pi r^2$. Find the area of a circle with radius 7 centimeters. Use 3.14 for π .

A) 153.86 cm^2

B) 10.14 cm^2

C) 69.02 cm^2

D) 21.98 cm^2

32) _____

Objective: (8.5) Evaluate a Formula

Solve the formula for the stated variable.

33) $C = 2\pi r$; solve for r

A) $r = \frac{C}{2\pi}$

B) $r = 2C\pi$

C) $r = \frac{2\pi}{C}$

D) $r = \frac{C\pi}{2}$

33) _____

Objective: (8.5) Solve a Formula for a Variable

34) $A = lw$; solve for w

A) $w = \frac{1}{A}$

B) $w = \frac{A}{1}$

C) $w = A - l$

D) $w = Al$

34) _____

Objective: (8.5) Solve a Formula for a Variable

35) $I = Prt$; solve for r

A) $r = \frac{P-1}{It}$

B) $r = \frac{P-I}{1+t}$

C) $r = \frac{I}{Pt}$

D) $r = P - It$

35) _____

Objective: (8.5) Solve a Formula for a Variable

36) $V = \frac{1}{3}Ah$; solve for h

36) _____

A) $h = \frac{3A}{V}$

B) $h = \frac{A}{3V}$

C) $h = \frac{V}{3A}$

D) $h = \frac{3V}{A}$

Objective: (8.5) Solve a Formula for a Variable

37) $P = a + b + c$; solve for c

37) _____

A) $c = a + b - P$

B) $c = P + a + b$

C) $c = P - a - b$

D) $c = P + a - b$

Objective: (8.5) Solve a Formula for a Variable

38) $A = P + PRT$; solve for R

38) _____

A) $R = \frac{A - P}{PT}$

B) $R = \frac{P - A}{PT}$

C) $R = \frac{PT}{A - P}$

D) $R = \frac{A}{T}$

Objective: (8.5) Solve a Formula for a Variable

39) $A = \frac{1}{2}h(B + b)$; solve for B

39) _____

A) $B = \frac{2A - bh}{h}$

B) $B = \frac{2A + bh}{h}$

C) $B = 2A - bh$

D) $B = \frac{A - bh}{h}$

Objective: (8.5) Solve a Formula for a Variable

Solve for y.

40) $4x - 5y = 2$

40) _____

A) $y = \frac{4x - 2}{5}$

B) $y = 4x - 2$

C) $y = \frac{4x + 2}{5}$

D) $y = \frac{2 - 4x}{5}$

Objective: (8.5) Solve a Formula for a Variable

41) $14x + 9y = 10$

41) _____

A) $y = \frac{10 - 14x}{9}$

B) $y = \frac{14}{9}x - \frac{10}{9}$

C) $y = \frac{14x - 10}{9}$

D) $y = \frac{14x + 10}{9}$

Objective: (8.5) Solve a Formula for a Variable

Solve the problem.

42) The sum of a number and three is negative eleven. Find the number.

42) _____

A) 14

B) -14

C) -8

D) 0

Objective: (8.6) Build Models for Solving Direct Translation Problems

43) Six times a number, added to 18, is 36. Find the number.

43) _____

A) 18

B) 108

C) 3

D) -3

Objective: (8.6) Build Models for Solving Direct Translation Problems

44) 2 times a number less than 7 times the same number is 35. Find the number.

44) _____

A) 5

B) -7

C) 7

D) 2.4

Objective: (8.6) Build Models for Solving Direct Translation Problems

Find the unknown in each percent question.

- 45) What is 10% of 400? 45) _____
A) 0.4 B) 400 C) 40 D) 4

Objective: (8.7) Solve Direct Translation Problems Involving Percent

Solve the problem.

- 46) 11% of students at a university attended a lecture. If 4000 students are enrolled at the university, about how many students attended the lecture? 46) _____
A) 44 students B) 44,000 students C) 440 students D) 4400 students

Objective: (8.7) Solve Direct Translation Problems Involving Percent

- 47) Logan bought stocks and later sold them for \$823,900, making a profit of 7%. How much did he pay for the stocks? 47) _____
A) \$53,900 B) \$57,673 C) \$770,000 D) \$847,000,000

Objective: (8.7) Model and Solve Direct Translation Problems from Business Involving Percent

- 48) After receiving a discount of 7.5% on its bulk order of typewriter ribbons, John's Office Supply pays \$4810. What was the price of the order before the discount? Round to the nearest dollar if necessary. 48) _____
A) \$4449 B) \$5200 C) \$4690 D) \$5171

Objective: (8.7) Model and Solve Direct Translation Problems from Business Involving Percent

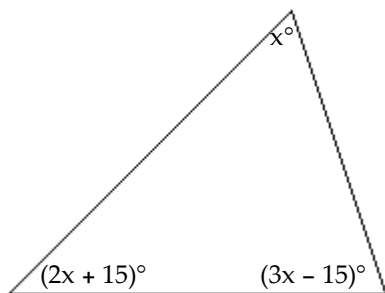
- 49) Find two complementary angles such that the measure of the first angle is x° , and the measure of the second angle is $(3x - 2)^\circ$. 49) _____
A) 1st angle = 22° ; 2nd angle = 64° B) 1st angle = 22° ; 2nd angle = 68°
C) 1st angle = 23° ; 2nd angle = 67° D) 1st angle = 31° ; 2nd angle = 59°

Objective: (8.8) Set Up and Solve Complementary and Supplementary Angle Problems

- 50) Find two supplementary angles such that the first angle is 30° more than 5 times the second. 50) _____
A) 25° ; 155° B) 10° ; 80° C) 30° ; 150° D) 155° ; 25°

Objective: (8.8) Set Up and Solve Complementary and Supplementary Angle Problems

- 51) Find the measure of each angle of the triangle. 51) _____



- A) 90° , 60° , 30° B) 45° , 82.5° , 52.5° C) 30° , 75° , 75° D) 60° , 75° , 45°

Objective: (8.8) Set Up and Solve Angles of a Triangle Problems

- 52) A rectangular carpet has a perimeter of 198 inches. The length of the carpet is 61 inches more than the width. What are the dimensions of the carpet? 52) _____
- A) 80 by 99 inches B) 59 by 78 inches
C) 89.5 by 99 inches D) 80 by 19 inches

Objective: (8.8) Use Geometry Formulas to Solve Problems

- 53) A motorcycle traveling at 50 miles per hour overtakes a car traveling at 30 miles per hour that had a three-hour head start. How far from the starting point are the two vehicles? 53) _____
- A) 225 miles B) 56.3 miles C) 7.5 miles D) 4.5 miles

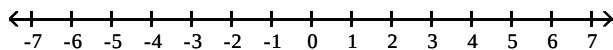
Objective: (8.8) Set Up and Solve Uniform Motion Problems

- 54) Two cars start from the same point and travel in the same direction. If one car is traveling 60 miles per hour and the other car is traveling at 56 miles per hour, how far apart will they be after 8 hours? 54) _____
- A) 928 miles B) 480 miles C) 32 miles D) 448 miles

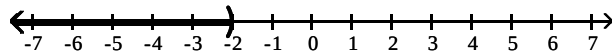
Objective: (8.8) Set Up and Solve Uniform Motion Problems

Graph the inequality on a number line, and write the inequality in interval notation.

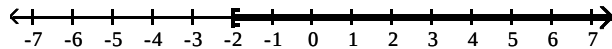
- 55) $x > -2$ 55) _____



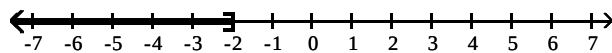
A) $(-\infty, -2)$



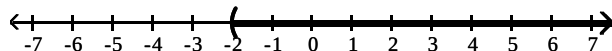
B) $[-2, \infty)$



C) $(-\infty, -2]$



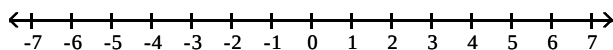
D) $(-2, \infty)$



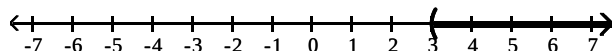
Objective: (8.9) Graph Inequalities on the Real Number Line

56) $x \geq 3$

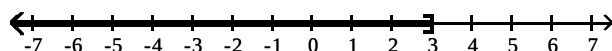
56) _____



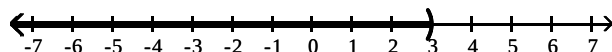
A) $(3, \infty)$



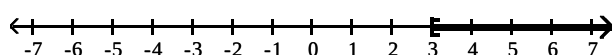
B) $(-\infty, 3]$



C) $(-\infty, 3)$



D) $[3, \infty)$

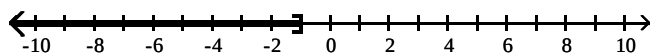


Objective: (8.9) Graph Inequalities on the Real Number Line

Use interval notation to express the inequality shown in the graph.

57)

57) _____



A) $(-\infty, -1]$

B) $(-1, \infty)$

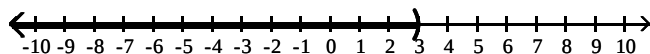
C) $[-1, \infty)$

D) $(-\infty, -1)$

Objective: (8.9) Use Interval Notation

58)

58) _____



A) $(3, \infty)$

B) $(-\infty, 3]$

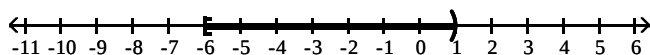
C) $[3, \infty)$

D) $(-\infty, 3)$

Objective: (8.9) Use Interval Notation

59)

59) _____



A) $[-6, 1)$

B) $(-6, 1)$

C) $(-6, 1]$

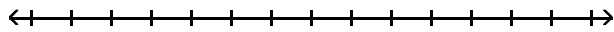
D) $[-6, 1]$

Objective: (8.9) Use Interval Notation

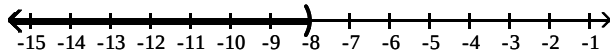
Solve the inequality and express the solution set in interval notation. Graph the solution set on the real number line.

60) $x - 3 < -5$

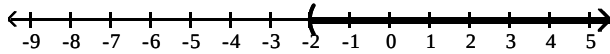
60) _____



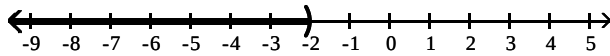
A) $(-\infty, -8)$



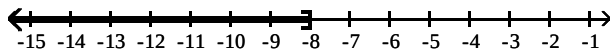
B) $(-2, \infty)$



C) $(-\infty, -2)$



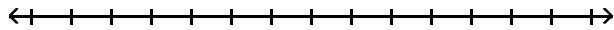
D) $(-\infty, -8]$



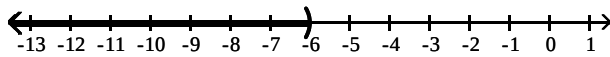
Objective: (8.9) Solve Linear Inequalities Using Properties of Inequality

61) $x - 1 \leq -5$

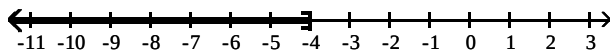
61) _____



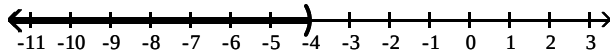
A) $(-\infty, -6)$



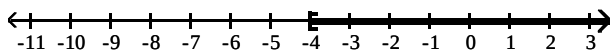
B) $(-\infty, -4]$



C) $(-\infty, -4)$



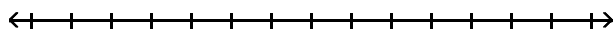
D) $[-4, \infty)$



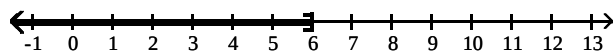
Objective: (8.9) Solve Linear Inequalities Using Properties of Inequality

62) $x + 5 < 1$

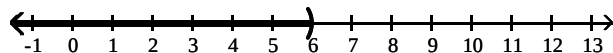
62) _____



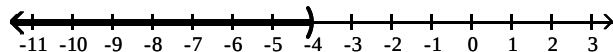
A) $(-\infty, 6]$



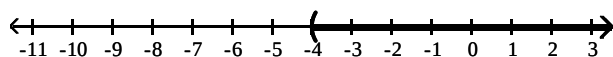
B) $(-\infty, 6)$



C) $(-\infty, -4)$



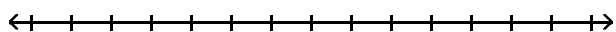
D) $(-4, \infty)$



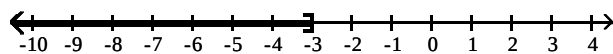
Objective: (8.9) Solve Linear Inequalities Using Properties of Inequality

63) $7x \geq -21$

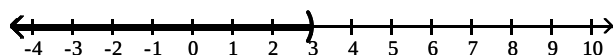
63) _____



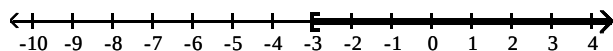
A) $(-\infty, -3]$



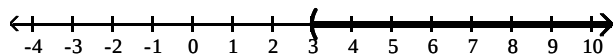
B) $(-\infty, 3)$



C) $[-3, \infty)$



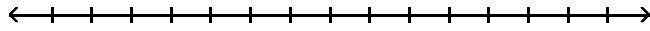
D) $(3, \infty)$



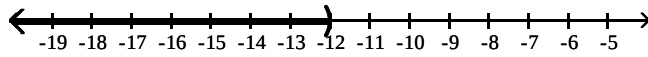
Objective: (8.9) Solve Linear Inequalities Using Properties of Inequality

64) $-3x > 36$

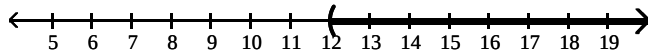
64) _____



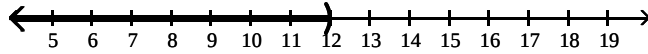
A) $(-\infty, -12)$



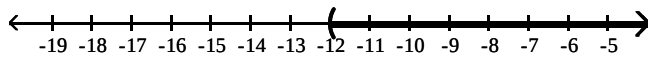
B) $(12, \infty)$



C) $(-\infty, 12)$



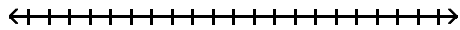
D) $(-12, \infty)$



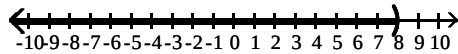
Objective: (8.9) Solve Linear Inequalities Using Properties of Inequality

65) $2x + 6 < 22$

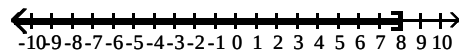
65) _____



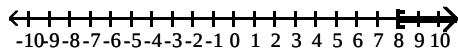
A) $(-\infty, 8)$



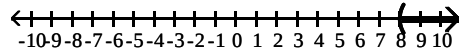
B) $(-\infty, 8]$



C) $[8, \infty)$



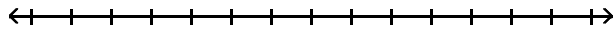
D) $(8, \infty)$



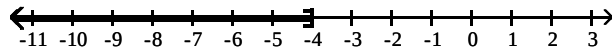
Objective: (8.9) Solve Linear Inequalities Using Properties of Inequality

66) $6x + 3 > 5x - 1$

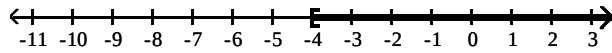
66) _____



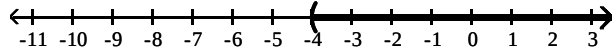
A) $(-\infty, -4]$



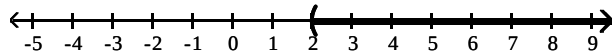
B) $[-4, \infty)$



C) $(-4, \infty)$



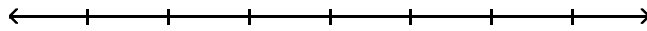
D) $(2, \infty)$



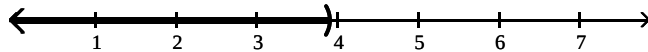
Objective: (8.9) Solve Linear Inequalities Using Properties of Inequality

67) $1.4x - 3.8 > 0.7x - 1.07$

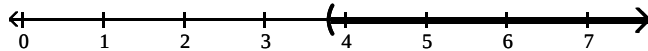
67) _____



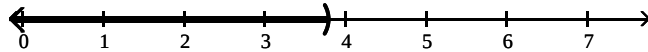
A) $(-\infty, 3.9)$



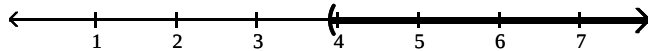
B) $(3.8, \infty)$



C) $(-\infty, 3.8)$



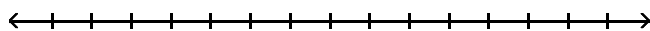
D) $(3.9, \infty)$



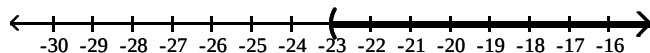
Objective: (8.9) Solve Linear Inequalities Using Properties of Inequality

68) $6x - 2 < 7(x - 3)$

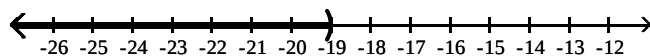
68) _____



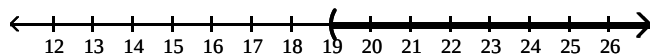
A) $(-23, \infty)$



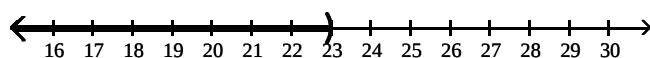
B) $(-\infty, -19)$



C) $(19, \infty)$



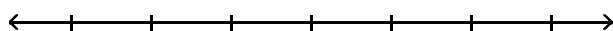
D) $(-\infty, 23)$



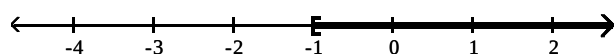
Objective: (8.9) Solve Linear Inequalities Using Properties of Inequality

69) $35x + 35 > 5(6x + 6)$

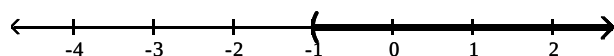
69) _____



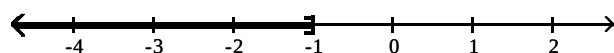
A) $[-1, \infty)$



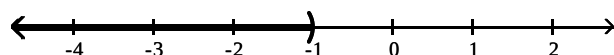
B) $(-1, \infty)$



C) $(-\infty, -1]$



D) $(-\infty, -1)$



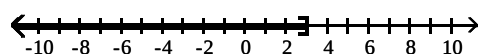
Objective: (8.9) Solve Linear Inequalities Using Properties of Inequality

70) $5 - 3(1 - x) \leq 11$

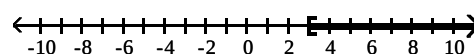
70) _____



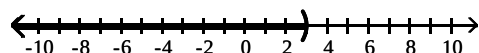
A) $(-\infty, 3]$



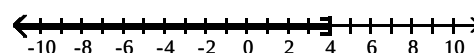
B) $[3, \infty)$



C) $(-\infty, 3)$



D) $(-\infty, 4]$



Objective: (8.9) Solve Linear Inequalities Using Properties of Inequality

Decide whether or not the ordered pair is a solution to the equation.

71) $4x + 2y = 16$; (2, 4)

A) Yes

B) No

71) _____

Objective: (9.2) Determine If an Ordered Pair Satisfies an Equation

72) $3x - 5y = 35$; (5, 4)

A) Yes

B) No

72) _____

Objective: (9.2) Determine If an Ordered Pair Satisfies an Equation

Solve the problem.

73) Find an ordered pair that satisfies the equation $y = -x + 9$ by letting $x = 5$.

A) (4, 5)

B) (5, 5)

C) (4, 4)

D) (5, 4)

73) _____

Objective: (9.2) Determine If an Ordered Pair Satisfies an Equation

74) Find an ordered pair that satisfies the equation $4x + y = -34$ by letting $x = -9$.

A) (-9, -9)

B) (-9, 2)

C) (-9, -38)

D) (2, -9)

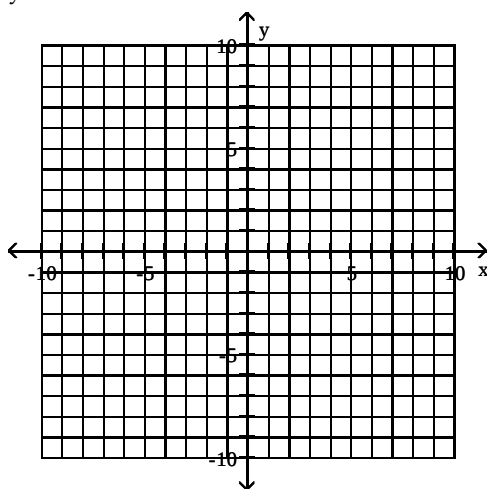
74) _____

Objective: (9.2) Determine If an Ordered Pair Satisfies an Equation

Graph the linear equation using the point-plotting method.

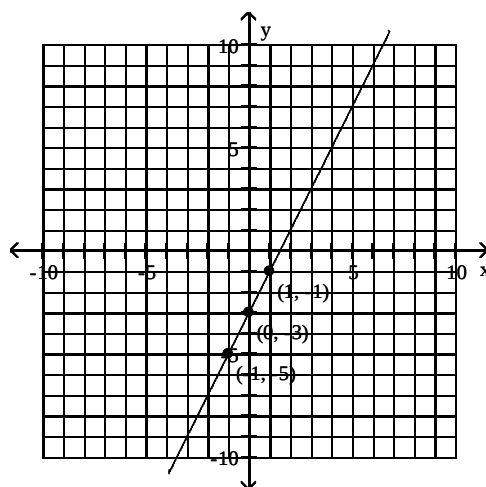
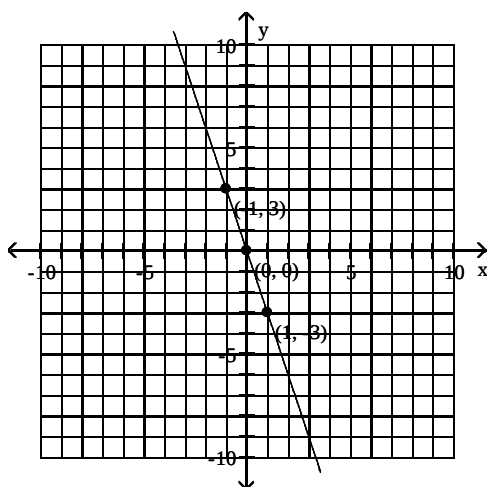
75) $y = 2x - 3$

75) _____

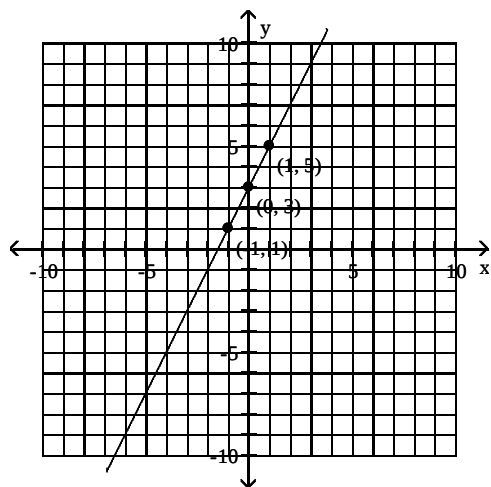


A)

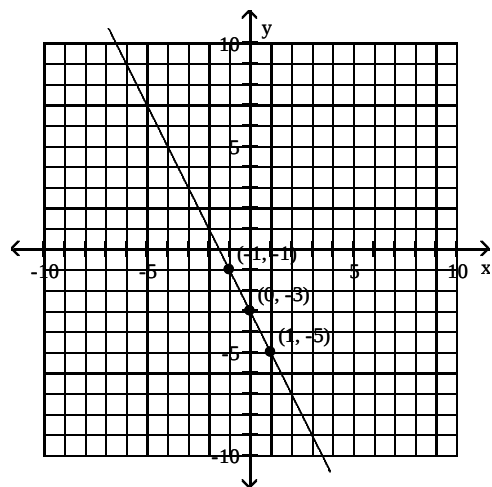
B)



C)



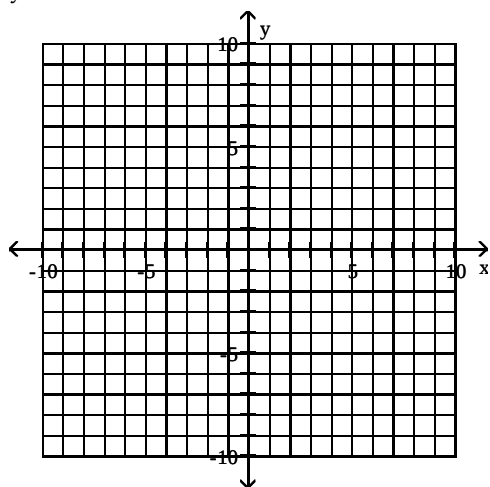
D)



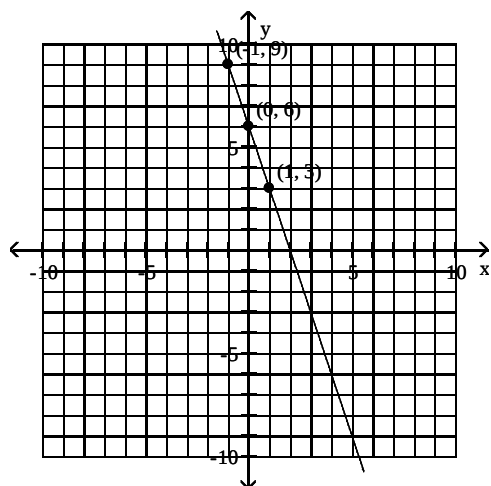
Objective: (9.3) Graph a Line by Plotting Points

76) $y = -3x - 6$

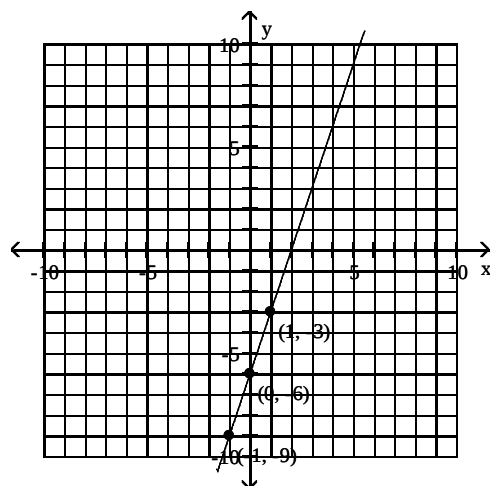
76) _____



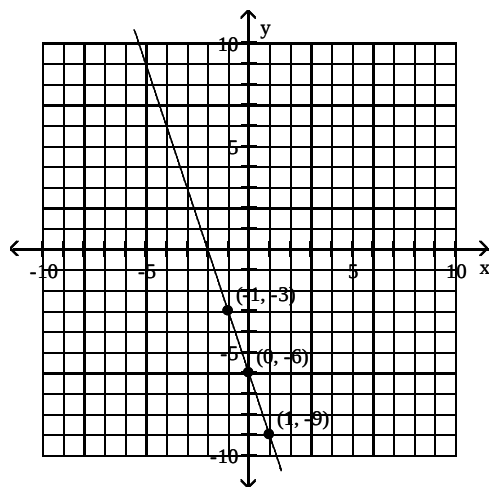
A)



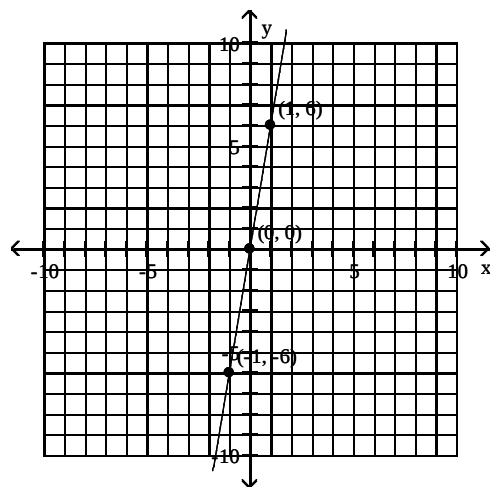
B)



C)



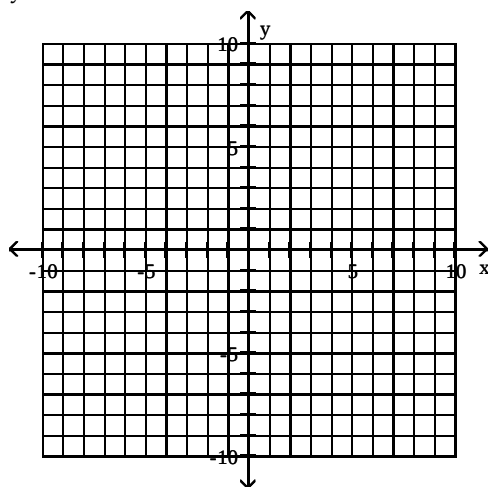
D)



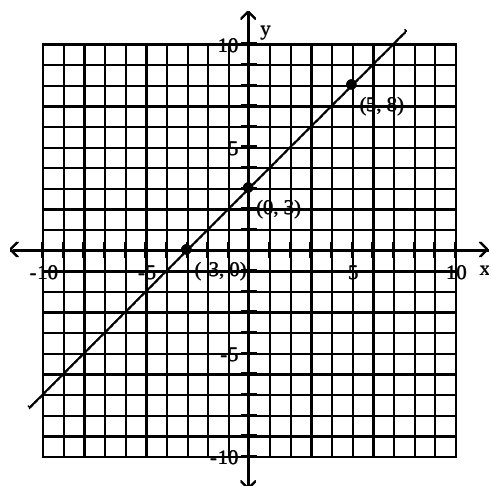
Objective: (9.3) Graph a Line by Plotting Points

77) $y = x - 3$

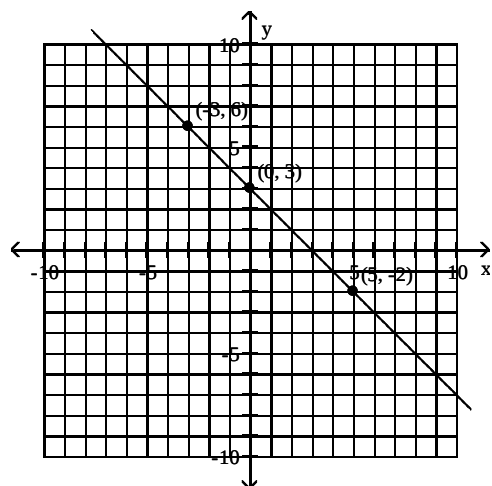
77) _____



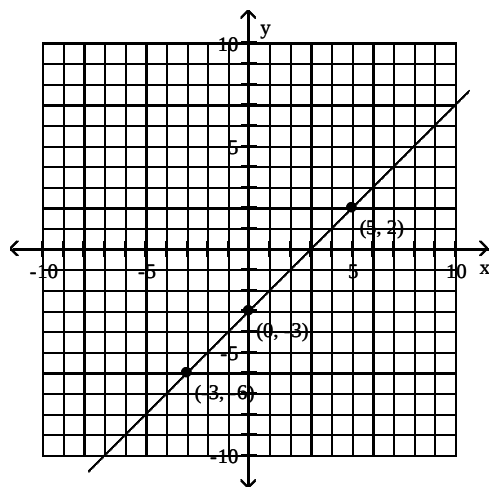
A)



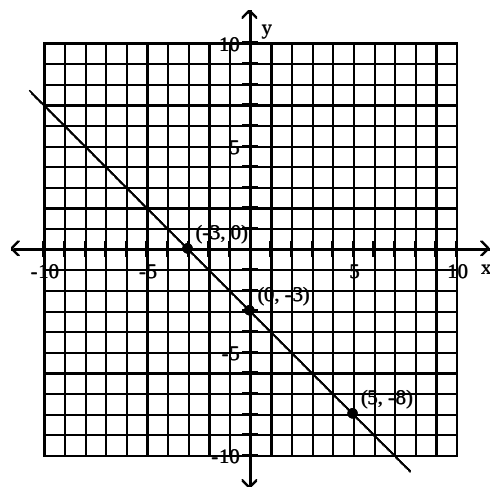
B)



C)



D)

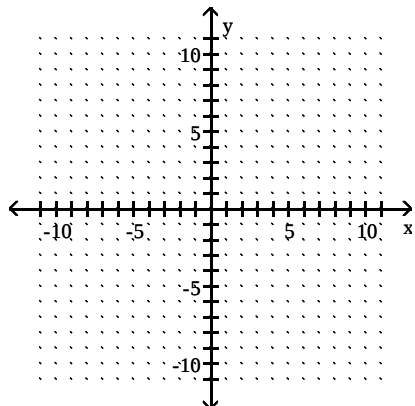


Objective: (9.3) Graph a Line by Plotting Points

Graph the linear equation by finding and plotting its intercepts.

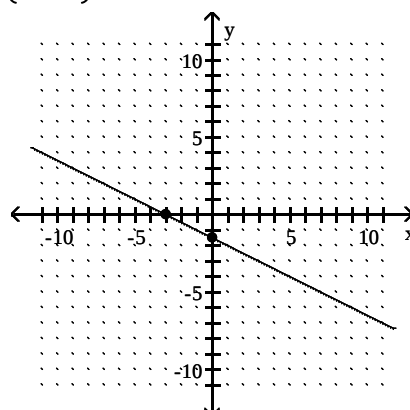
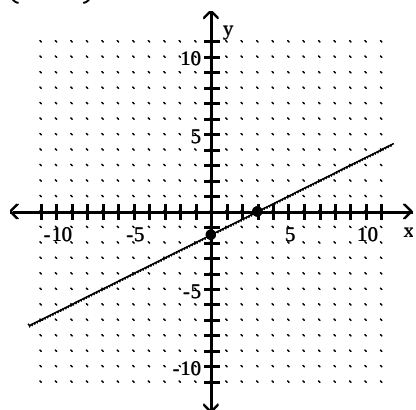
78) $6y - 3x = -9$

78) _____



A) $\left(0, -\frac{3}{2}\right), (3, 0)$

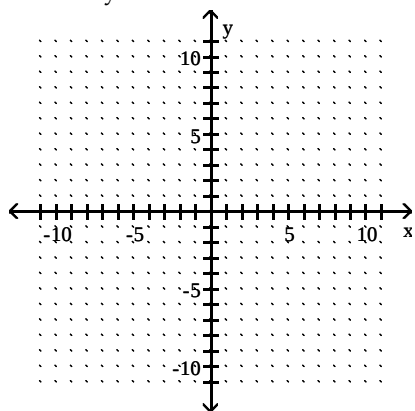
B) $\left(0, -\frac{3}{2}\right), (-3, 0)$



Objective: (9.3) Graph a Line Using Intercepts

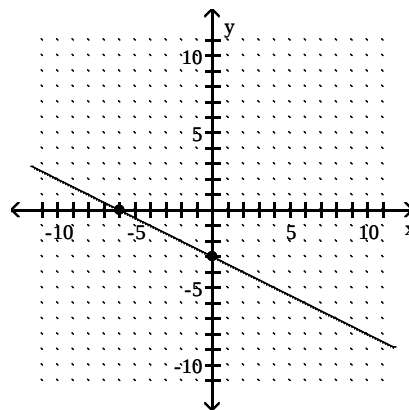
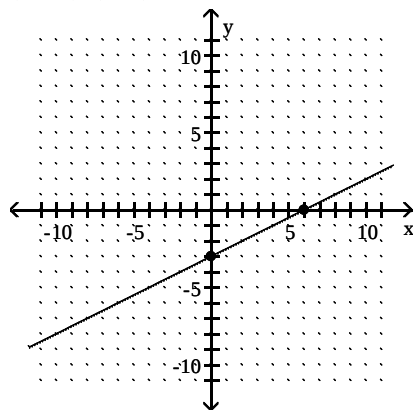
79) $-5x - 10y = 30$

79) _____



A) $(0, -3), (6, 0)$

B) $(0, -3), (-6, 0)$

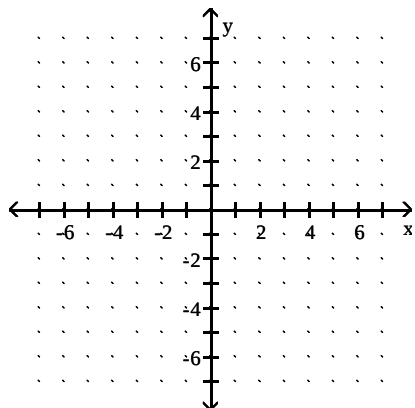


Objective: (9.3) Graph a Line Using Intercepts

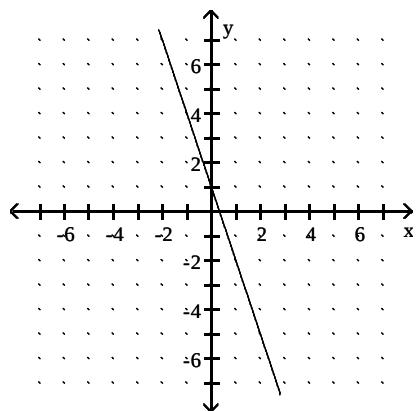
Use a graphing calculator to graph the equation.

80) $y = -3x + 1$

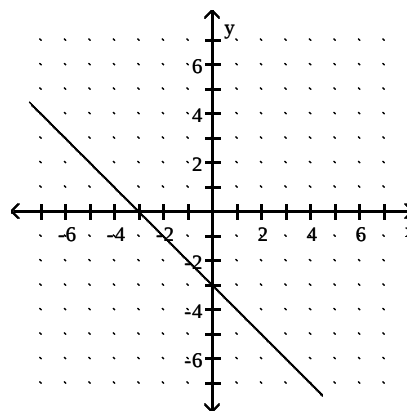
80) _____



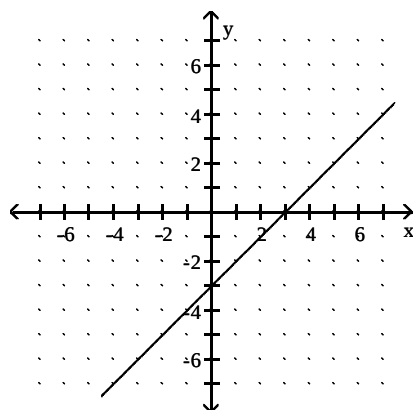
A)



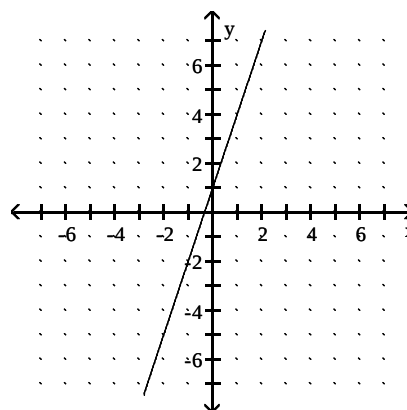
B)



C)



D)

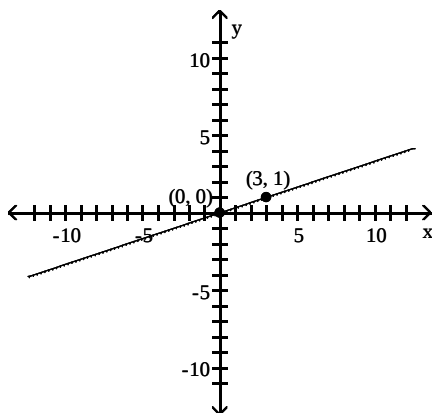


Objective: (9.3) Graph a Line Using Intercepts

Find the slope of the line through the points and interpret the slope.

81)

81) _____



A) -3; for every 1-unit increase in x , y will decrease by 3 units

B) $-\frac{1}{3}$; for every 3-unit increase in x , y will decrease by 1 unit

C) $\frac{1}{3}$; for every 3-unit increase in x , y will increase by 1 unit

D) 3; for every 1-unit increase in x , y will increase by 3 units

Objective: (9.4) Find the Slope of a Line Given Two Points

82) (1, -3); (7, 8)

82) _____

A) $-\frac{6}{11}$; for every 11-unit increase in x, y will decrease by 6 units

B) $\frac{11}{6}$; for every 6-unit increase in x, y will increase by 11 units

C) $-\frac{11}{6}$; for every 6-unit increase in x, y will decrease by 11 units

D) $\frac{6}{11}$; for every 11-unit increase in x, y will increase by 6 units

Objective: (9.4) Find the Slope of a Line Given Two Points

Find the slope of the line containing the two points.

83) (1, -5); (-9, 6)

83) _____

A) $-\frac{11}{10}$

B) $-\frac{10}{11}$

C) $\frac{11}{10}$

D) $\frac{10}{11}$

Objective: (9.4) Find the Slope of a Line Given Two Points

84) (-4, 7); (-3, -5)

84) _____

A) $-\frac{1}{12}$

B) $\frac{1}{12}$

C) 12

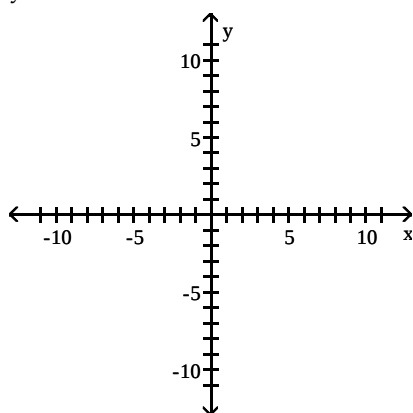
D) -12

Objective: (9.4) Find the Slope of a Line Given Two Points

Find any two ordered pairs on the line. Graph the line and determine its slope.

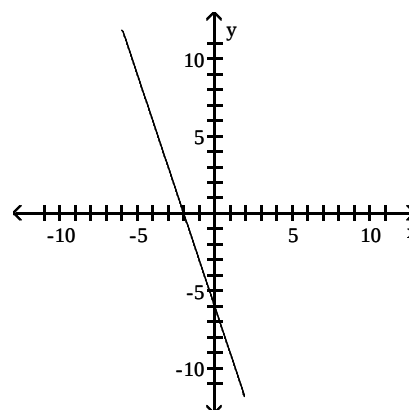
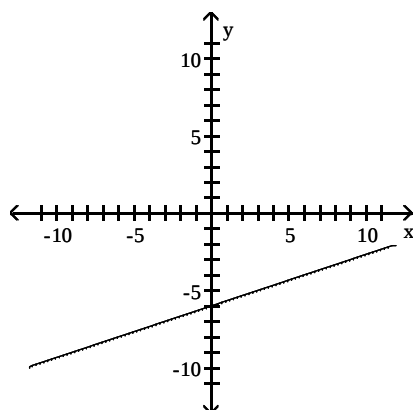
85) $y = -3x - 6$

85) _____

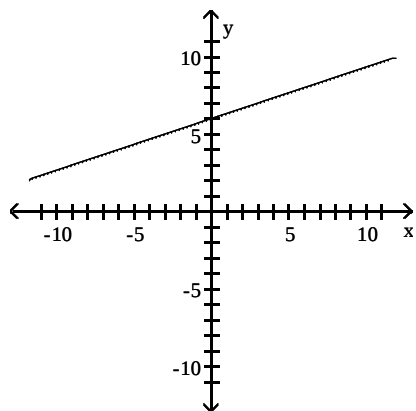


A) $m = -6$

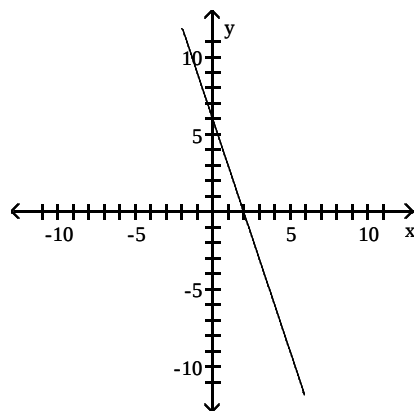
B) $m = -3$



C) $m = -6$



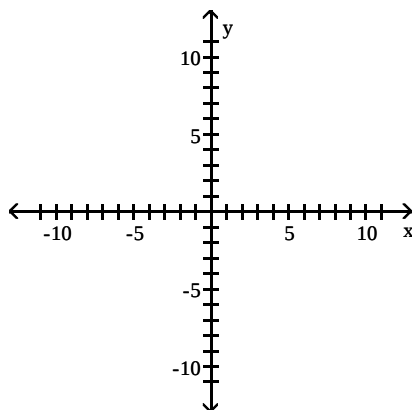
D) $m = -3$



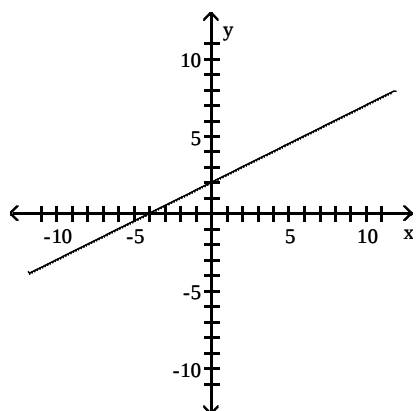
Objective: (9.4) Find the Slope of a Line Given Two Points

86) $y = \frac{1}{2}x + 2$

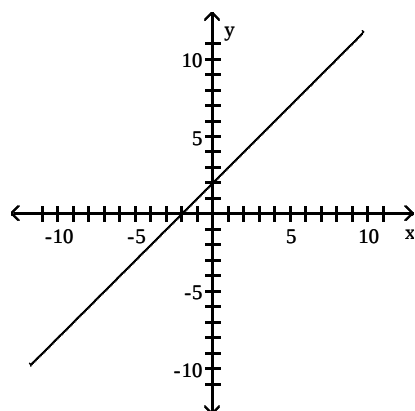
86) _____



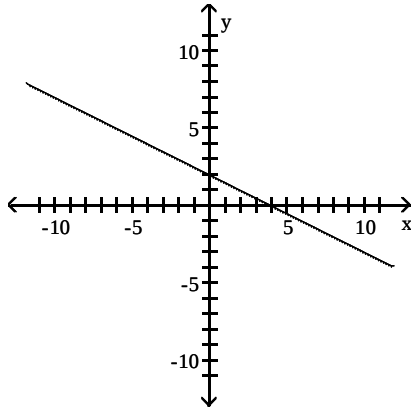
A) $m = \frac{1}{2}$



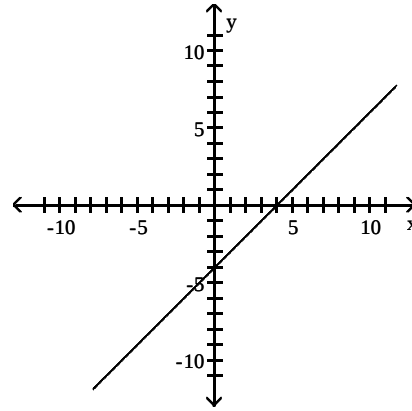
B) $m = \frac{1}{2}$



C) $m = \frac{1}{2}$



D) $m = \frac{1}{2}$



Objective: (9.4) Find the Slope of a Line Given Two Points

Find the slope and the y-intercept.

87) $y = 3x + 11$

87) _____

A) $m = 11$; $b = 3$

B) $m = \frac{1}{3}$; $b = 11$

C) $m = -3$; $b = -11$

D) $m = 3$; $b = 11$

Objective: (9.5) Use the Slope-Intercept Form to Identify the Slope and y-Intercept of a Line

88) $y = \frac{2}{3}x + \frac{5}{6}$

88) _____

A) $m = -\frac{2}{3}$; $b = -\frac{5}{6}$

B) $m = \frac{3}{2}$; $b = \frac{6}{5}$

C) $m = \frac{2}{3}$; $b = \frac{5}{6}$

D) $m = \frac{5}{6}$; $b = \frac{2}{3}$

Objective: (9.5) Use the Slope-Intercept Form to Identify the Slope and y-Intercept of a Line

89) $3x + y = 4$

89) _____

A) $m = -\frac{1}{3}$; $b = \frac{4}{3}$

B) $m = -3$; $b = 4$

C) $m = \frac{3}{4}$; $b = \frac{1}{4}$

D) $m = 3$; $b = 4$

Objective: (9.5) Use the Slope-Intercept Form to Identify the Slope and y-Intercept of a Line

90) $7x - 3y = -11$

90) _____

A) $m = -7$; $b = -11$

B) $m = \frac{7}{3}$; $b = \frac{11}{3}$

C) $m = 21$; $b = 33$

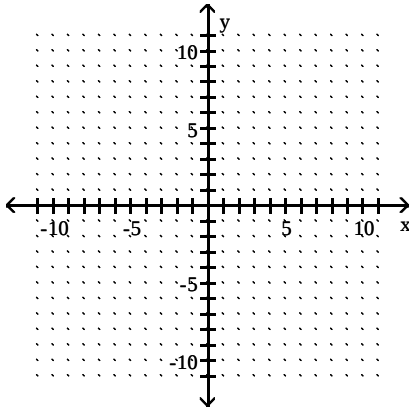
D) $m = \frac{3}{7}$; $b = -\frac{11}{7}$

Objective: (9.5) Use the Slope-Intercept Form to Identify the Slope and y-Intercept of a Line

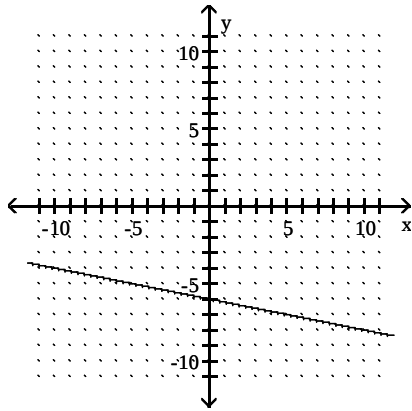
Use the slope and y-intercept to graph the equation.

91) $y = 5x - 6$

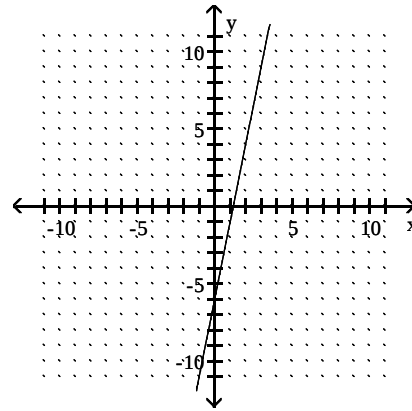
91) _____



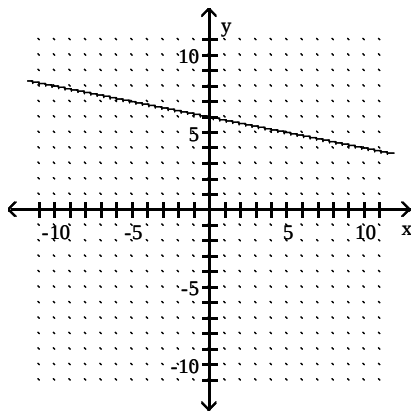
A)



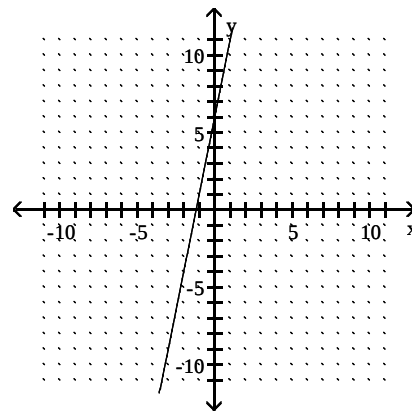
B)



C)



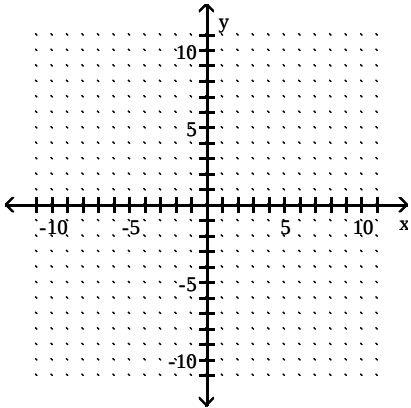
D)



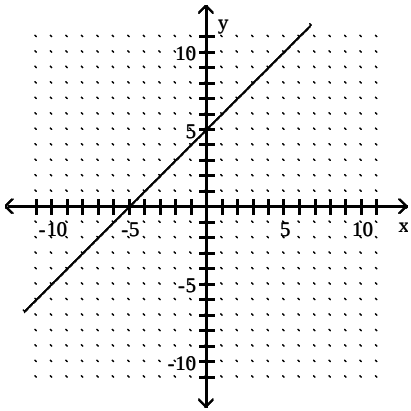
Objective: (9.5) Graph a Line Whose Equation Is in Slope-Intercept Form

92) $y = \frac{1}{2}x + 5$

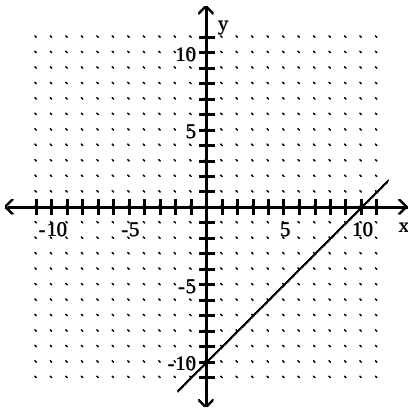
92) _____



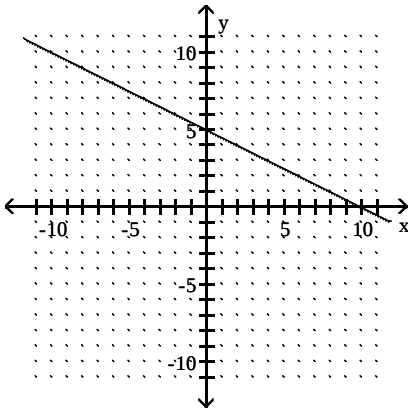
A)



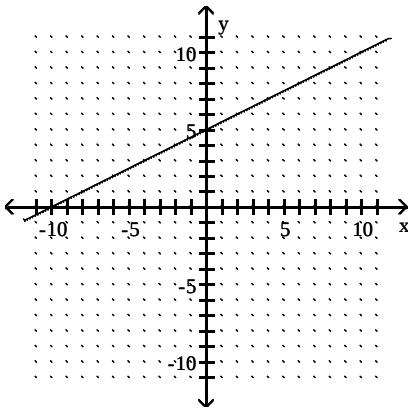
C)



B)



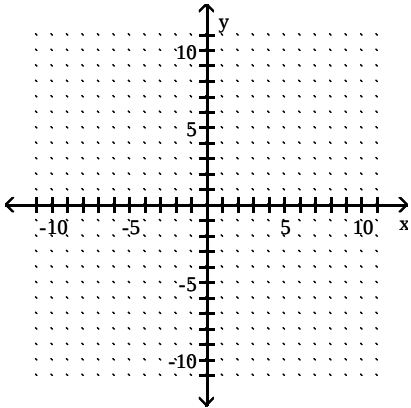
D)



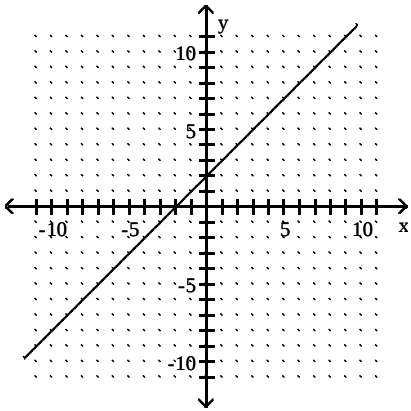
Objective: (9.5) Graph a Line Whose Equation Is in Slope-Intercept Form

93) $y = -\frac{1}{2}x + 2$

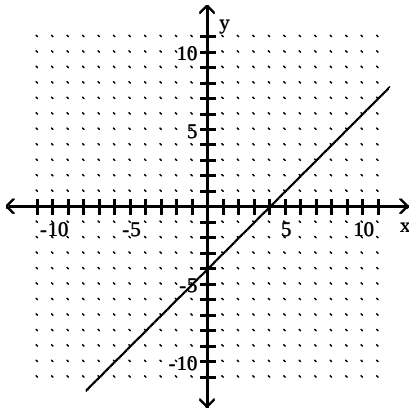
93) _____



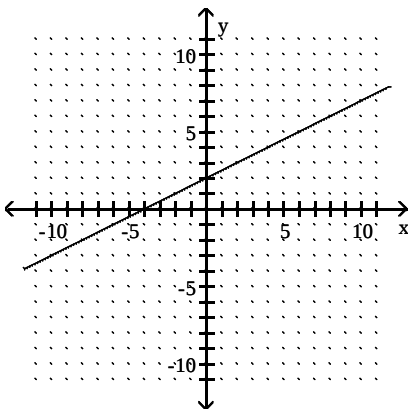
A)



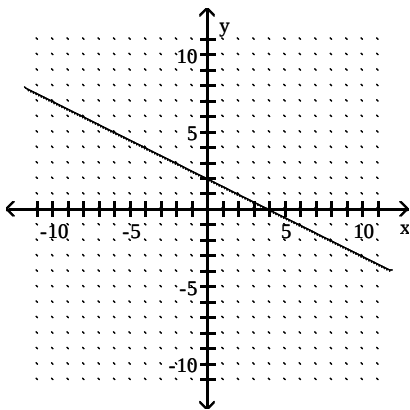
B)



C)



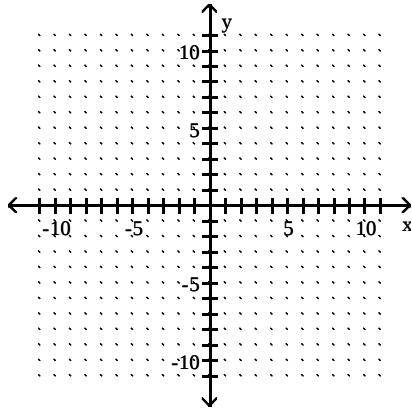
D)



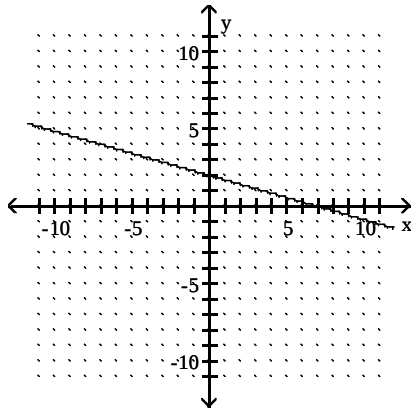
Objective: (9.5) Graph a Line Whose Equation Is in Slope-Intercept Form

94) $7x + 2y = 14$

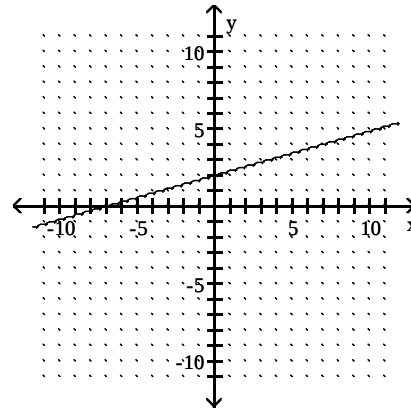
94) _____



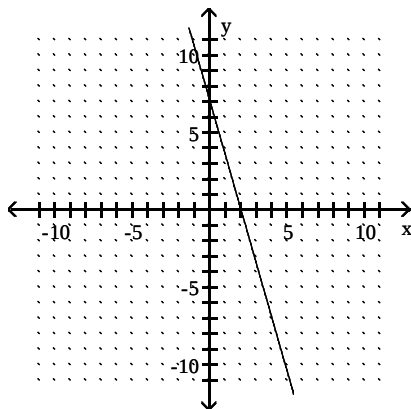
A)



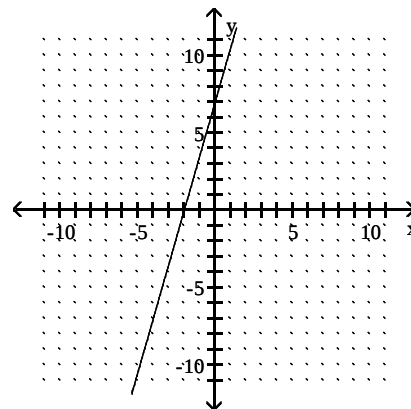
B)



C)



D)



Objective: (9.5) Graph a Line Whose Equation Is in the Form $Ax + By = C$

Find the equation of the line with the given slope and intercept.

95) Slope -8 ; y -intercept is 2

95) _____

A) $y = -2x + 8$

B) $y = 8x - 2$

C) $y = -8x + 2$

D) $y = 2x - 8$

Objective: (9.5) Find the Equation of a Line Given Its Slope and y -Intercept

Find the equation of the line described. Write the equation in slope-intercept form, if possible.

96) $(4, 3)$; slope $= -3$

96) _____

A) $y = -3x + 15$

B) $x = -3y + 15$

C) $y = -3x - 15$

D) $x = -3y - 15$

Objective: (9.6) Find the Equation of a Line Given a Point and a Slope

97) $(-2, -7)$; slope = -2

A) $x = -2y + 11$

B) $y = -2x - 11$

C) $x = -2y - 11$

D) $y = -2x + 11$

97) _____

Objective: (9.6) Find the Equation of a Line Given a Point and a Slope

Determine if the lines parallel, perpendicular, or neither.

98) $L_1: y = x - 6$

98) _____

$L_2: y = 2 - x$

A) neither

B) perpendicular

C) parallel

Objective: (9.7) Determine Whether Two Lines Are Perpendicular

99) $L_1: y = 7x + 9$

99) _____

$L_2: y = -7x - 3$

A) perpendicular

B) parallel

C) neither

Objective: (9.7) Determine Whether Two Lines Are Perpendicular

100) $L_1: y = 7x + 5$

100) _____

$L_2: y = -\frac{1}{7}x + 3$

A) perpendicular

B) parallel

C) neither

Objective: (9.7) Determine Whether Two Lines Are Perpendicular

101) $L_1: 6x + 2y = 8$

101) _____

$L_2: 18x + 6y = 27$

A) parallel

B) neither

C) perpendicular

Objective: (9.7) Determine Whether Two Lines Are Perpendicular

Solve the system of equations using substitution.

102) $\begin{cases} x + y = -6 \\ y = 2x \end{cases}$

102) _____

A) $(-2, 4)$

B) $(-2, -4)$

C) $(2, 4)$

D) $(2, -4)$

Objective: (10.3) Solve a System of Linear Equations Using the Substitution Method

Solve the system of equations using elimination.

103) $\begin{cases} 3x + y = -30 \\ 5x - y = 6 \end{cases}$

103) _____

A) $(-3, -21)$

B) no solution

C) infinitely many solutions

D) $(-21, -3)$

Objective: (10.4) Solve a System of Linear Equations Using the Elimination Method

104) $\begin{cases} x + y = -11 \\ x - y = -1 \end{cases}$

104) _____

A) $(-6, -5)$

B) no solution

C) $(6, -4)$

D) $(-7, -4)$

Objective: (10.4) Solve a System of Linear Equations Using the Elimination Method

105) $\begin{cases} x + 6y = 45 \\ 6x + 6y = 30 \end{cases}$ 105) _____
 A) infinite number of solutions B) (-3, 8)
 C) (-8, -3) D) no solution

Objective: (10.4) Solve a System of Linear Equations Using the Elimination Method

106) $\begin{cases} x - 4y = 17 \\ -3x - 5y = 51 \end{cases}$ 106) _____
 A) (-8, -5) B) (-7, -6) C) (7, -5) D) no solution

Objective: (10.4) Solve a System of Linear Equations Using the Elimination Method

Solve the system of equations using elimination. State whether the system is inconsistent, or consistent and dependent.

107) $\begin{cases} x + y = 4 \\ x + y = -6 \end{cases}$ 107) _____
 A) no solution; consistent and dependent
 B) infinitely many solutions; inconsistent
 C) infinitely many solutions; consistent and dependent
 D) no solution; inconsistent

Objective: (10.4) Solve a System of Linear Equations Using the Elimination Method

Add the polynomials. Express your answer in standard form.

108) $(-2x^2 - 5x - 6) + (8x^2 - 5x + 4)$ 108) _____
 A) $-16x^2 - 5x - 2$ B) $6x^4 - 10x^2 - 2$ C) $6x^2 - 10x - 2$ D) $6x^2 - 5x - 2$

Objective: (11.2) Simplify Polynomials by Combining Like Terms

Subtract the polynomials. Express your answer in standard form.

109) $(7x^2 + 20x + 5) - (5x^2 - 4x - 12)$ 109) _____
 A) $2x^2 + 24x - 7$ B) $2x^2 + 25x - 7$ C) $43x^9$ D) $2x^2 + 24x + 17$

Objective: (11.2) Simplify Polynomials by Combining Like Terms

Evaluate the polynomial for the given value.

110) $-2x^2 + 8x - 3$ $x = -3$ 110) _____
 A) 39 B) 3 C) -9 D) -45

Objective: (11.2) Evaluate Polynomials

Simplify the expression.

111) $(-8x^9y^8z)^2$ 111) _____
 A) $-8x^{11}y^{10}z$ B) $-64x^{18}y^{16}z^2$ C) $16x^{18}y^{16}z^2$ D) $64x^{18}y^{16}z^2$

Objective: (11.3) Simplify Exponential Expressions Containing Products

Multiply the monomials.

112) $(-6z^2)(5z^3)$ 112) _____
 A) $-30z^5$ B) $30z^6$ C) $4500z^5$ D) $-30z^6$

Objective: (11.3) Multiply a Monomial by a Monomial

113) $(7x^6y)(8x^2y^4)$ 113) _____
 A) $56x^8y^5$ B) $56x^8y^4$ C) $56x^{12}y^4$ D) $15x^8y^4$

Objective: (11.3) Multiply a Monomial by a Monomial

114) $(m^3n)^4(-4mn^6)$ 114) _____
 A) $-16m^4n^7$ B) $4m^{13}n^{10}$ C) $-4m^{12}n^{24}$ D) $-4m^{13}n^{10}$

Objective: (11.3) Multiply a Monomial by a Monomial

Use the Distributive Property to find the product.

115) $-11x(6x - 4)$ 115) _____
 A) $-66x^2 - 4x$ B) $-22x^2$ C) $-66x^2 + 44x$ D) $6x^2 + 44x$

Objective: (11.4) Multiply a Polynomial by a Monomial

116) $2y^2(3y^2 + 3y - 7)$ 116) _____
 A) $6y^4 + 6y - 14$ B) $5y^4 + 5y - 5$
 C) $6y^4 + 6y^3 - 14y^2$ D) $6y^4 + 6y^2 - 14$

Objective: (11.4) Multiply a Polynomial by a Monomial

117) $(x + 3)(x + 3)$ 117) _____
 A) $x^2 + 5x + 9$ B) $x^2 + 6x + 9$ C) $x^2 + 6x + 5$ D) $x^2 + 9x + 6$

Objective: (11.4) Multiply Two Binomials Using the Distributive Property

118) $(4y - 5)(4y - 3)$ 118) _____
 A) $16y^2 + 15$ B) $16y^2 + 8y + 15$ C) $16y^2 - 32y + 15$ D) $8y^2 - 8$

Objective: (11.4) Multiply Two Binomials Using the Distributive Property

Find the product using the FOIL method.

119) $(y - 1)(y - 4)$ 119) _____
 A) $y^2 - 5y + 4$ B) $2y + 4$ C) $2y^2 - 4$ D) $y^2 + 5y - 4$

Objective: (11.4) Multiply Two Binomials Using the FOIL Method

120) $(b - 8)(b + 1)$ 120) _____
 A) $b^2 - 7b - 8$ B) $2b - 8$ C) $2b^2 + 8$ D) $b^2 + 7b + 8$

Objective: (11.4) Multiply Two Binomials Using the FOIL Method

121) $(4x + 3)(x - 9)$ 121) _____
 A) $x^2 - 27x - 33$ B) $x^2 - 33x - 34$ C) $4x^2 - 33x - 27$ D) $4x^2 - 34x - 27$

Objective: (11.4) Multiply Two Binomials Using the FOIL Method

122) $(3n + 5p)(6n + p)$ 122) _____
 A) $18n^2 + 90np + 5p^2$ B) $36n^2 + 33np + 5p^2$
 C) $18n + 33np + 5p$ D) $18n^2 + 33np + 5p^2$

Objective: (11.4) Multiply Two Binomials Using the FOIL Method

123) $(9x + 4y)(7x - 2y)$

A) $63x^2 - 18xy - 8y^2$

C) $63x^2 + 10xy - 8y^2$

B) $63x^2 + 28xy - 8y^2$

D) $63x^2 + 10xy + 10y^2$

123) _____

Objective: (11.4) Multiply Two Binomials Using the FOIL Method

Find the product of the sum and difference of two terms.

124) $(x + 4)(x - 4)$

A) $x^2 + 8x - 16$

B) $x^2 - 16$

C) $x^2 - 8x - 16$

D) $x^2 - 8$

124) _____

Objective: (11.4) Multiply the Sum and Difference of Two Terms

125) $(7p + 9)(7p - 9)$

A) $49p^2 - 81$

C) $49p^2 + 126p - 81$

B) $p^2 - 81$

D) $49p^2 - 126p - 81$

125) _____

Objective: (11.4) Multiply the Sum and Difference of Two Terms

126) $(2x + 5y)(2x - 5y)$

A) $4x^2 - 20xy - 25y^2$

C) $4x^2 + 20xy - 25y^2$

B) $4x^2 + 25y^2$

D) $4x^2 - 25y^2$

126) _____

Objective: (11.4) Multiply the Sum and Difference of Two Terms

Find the product.

127) $(n + 15)^2$

A) $n^2 + 225$

C) $225n^2 + 30n + 225$

B) $n^2 + 30n + 225$

D) $n + 225$

127) _____

Objective: (11.4) Square a Binomial

128) $(w - 11)^2$

A) $w^2 + 121$

C) $w + 121$

B) $w^2 - 22w + 121$

D) $121w^2 - 22w + 121$

128) _____

Objective: (11.4) Square a Binomial

129) $(4x + 3y)^2$

A) $4x^2 + 9y^2$

C) $16x^2 + 24xy + 9y^2$

B) $4x^2 + 24xy + 9y^2$

D) $16x^2 + 9y^2$

129) _____

Objective: (11.4) Square a Binomial

130) $(6x - 11y)^2$

A) $36x^2 + 121y^2$

C) $36x^2 - 132xy + 121y^2$

B) $6x^2 + 121y^2$

D) $6x^2 - 132xy + 121y^2$

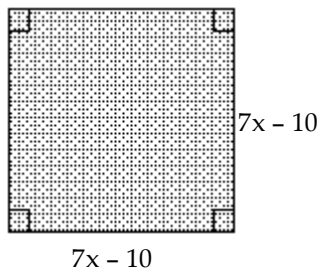
130) _____

Objective: (11.4) Square a Binomial

Find an algebraic expression that represents the area of the shaded region.

131)

131) _____



A) $49x^2 - 140x + 100$

B) $49x^2 + 140x + 100$

C) $49x^2 - 140x - 100$

D) $49x^2 + 140x - 100$

Objective: (11.4) Square a Binomial

Find the product.

132) $(y - 7)(y^2 + 7y - 4)$

132) _____

A) $y^3 - 14y^2 - 53y + 28$

B) $y^3 + 45y - 28$

C) $y^3 - 53y + 28$

D) $y^3 + 14y^2 + 53y - 28$

Objective: (11.4) Multiply a Polynomial by a Polynomial

133) $(7x - 1)(x^2 - 4x + 1)$

133) _____

A) $7x^3 - 27x^2 + 3x - 1$

B) $7x^3 + 29x^2 - 11x + 1$

C) $7x^3 - 28x^2 + 7x + 1$

D) $7x^3 - 29x^2 + 11x - 1$

Objective: (11.4) Multiply a Polynomial by a Polynomial

134) $(2y + 11)(5y^2 - 2y - 9)$

134) _____

A) $10y^3 + 51y^2 - 40y - 99$

B) $10y^3 + 59y^2 + 40y + 99$

C) $65y^2 - 26y - 117$

D) $10y^3 - 4y^2 - 18y + 11$

Objective: (11.4) Multiply a Polynomial by a Polynomial

Use the Quotient Rule to simplify. All variables are nonzero.

135) $\frac{56m^{20}n^{14}}{7m^{19}n^{10}}$

135) _____

A) $8n^4$

B) $8mn^4$

C) $56mn^4$

D) $8m^{39}n^{24}$

Objective: (11.5) Simplify Exponential Expressions Using the Quotient Rule

136) $\frac{24x^6y^{11}}{6x^3y^6}$

136) _____

A) $4x^3y^5$

B) $4x^2y^4$

C) x^3y^5

D) $4x^2y^3$

Objective: (11.5) Simplify Exponential Expressions Using the Quotient Rule

Use the Quotient to a Power Rule to simplify. All variables are nonzero.

137) $\left(\frac{5}{6}\right)^3$ 137) _____
A) $\frac{6}{125}$ B) $\frac{125}{6}$ C) $\frac{216}{125}$ D) $\frac{125}{216}$

Objective: (11.5) Simplify Exponential Expressions Using the Quotient to a Power Rule

138) $\left(\frac{6t^3}{3s^4}\right)^2$ 138) _____
A) $\frac{4t^6}{s^4}$ B) $\frac{4t^6}{s^8}$ C) $\frac{4t^5}{s^6}$ D) $\frac{2t^6}{s^8}$

Objective: (11.5) Simplify Exponential Expressions Using the Quotient to a Power Rule

Use the Zero Exponent Rule to simplify. All variables are nonzero.

139) 9^0 139) _____
A) 1 B) 9 C) 0 D) -1

Objective: (11.5) Simplify Exponential Expressions Using Zero as an Exponent

140) $\left(\frac{5}{7}\right)^0$ 140) _____
A) 0 B) $\frac{5}{7}$ C) 2 D) 1

Objective: (11.5) Simplify Exponential Expressions Using Zero as an Exponent

Use the Negative Exponent Rules to simplify. Write the answer with positive exponents. All variables are nonzero.

141) 7^{-1} 141) _____
A) $-\frac{1}{7}$ B) 7 C) $\frac{1}{7}$ D) -7

Objective: (11.5) Simplify Exponential Expressions Using Negative Exponents

142) 3^{-4} 142) _____
A) -81 B) $\frac{1}{81}$ C) $\frac{1}{12}$ D) 81

Objective: (11.5) Simplify Exponential Expressions Using Negative Exponents

Divide and simplify.

143) $\frac{21r^7 - 35r^4}{7r}$ 143) _____
A) $3r^8 - 5r^5$ B) $3r^6 - 5r^3$ C) $21r^6 - 35r^3$ D) $3r^7 - 5r^4$

Objective: (11.6) Divide a Polynomial by a Monomial

144) $\frac{24x^2 + 20x - 11}{4x}$

144) _____

A) $6x - 6$

B) $6x^2 + 5x - \frac{11}{4}$

C) $24x + 20 - \frac{11}{4x}$

D) $6x + 5 - \frac{11}{4x}$

Objective: (11.6) Divide a Polynomial by a Monomial

Find the quotient using long division.

145) $\frac{x^2 + 13x + 40}{x + 8}$

145) _____

A) $x^2 + 5$

B) $x + 5$

C) $x - 32$

D) $x^3 - 32$

Objective: (11.6) Divide a Polynomial by a Binomial

146) $\frac{3m^2 + 17m - 56}{m + 8}$

146) _____

A) $3m - 7 + \frac{6}{m - 7}$

B) $m - 7$

C) $3m - 7$

D) $3m + 7$

Objective: (11.6) Divide a Polynomial by a Binomial

Factor the GCF from the polynomial.

147) $4x^5 + 16x^3$

147) _____

A) $4x^3(x^2 + 4)$

B) $x^5(4x^2 + 16)$

C) $4x^4(x + 4x)$

D) $4(x^5 + 4x^3)$

Objective: (12.2) Factor Out the Greatest Common Factor in Polynomials

148) $20x^5y + 36xy^6$

148) _____

A) $4y(5x^5 + 9xy^5)$

B) $4xy(5x^4 + 9y^5)$

C) $xy(20x^4 + 36y^5)$

D) $4x(5x^4y + 9y^6)$

Objective: (12.2) Factor Out the Greatest Common Factor in Polynomials

Factor by grouping.

149) $5x + 50 + xy + 10y$

149) _____

A) $(x + 10y)(5 + y)$

B) $(y + 10)(x + 5)$

C) $(x + 10)(5 + y)$

D) $(y + 10)(5x + y)$

Objective: (12.2) Factor Polynomials by Grouping

150) $3x - 36 + xy - 12y$

150) _____

A) $(x - 12y)(3 + y)$

B) $(y - 12)(x + 3)$

C) $(x - 12)(3 + y)$

D) $(y - 12)(3x + y)$

Objective: (12.2) Factor Polynomials by Grouping

Factor the trinomial completely. If the trinomial cannot be factored, say it is prime.

151) $x^2 + x - 20$

151) _____

A) $(x - 5)(x + 4)$

B) $(x + 1)(x - 20)$

C) prime

D) $(x - 4)(x + 5)$

Objective: (12.3) Factor Trinomials of the Form $x^2 + bx + c$

152) $x^2 + 2x - 35$

152) _____

A) $(x + 7)(x - 5)$

B) prime

C) $(x - 7)(x + 5)$

D) $(x - 7)(x + 1)$

Objective: (12.3) Factor Trinomials of the Form $x^2 + bx + c$

153) $x^2 - x - 12$ 153) _____
 A) $(x + 3)(x - 4)$ B) $(x + 1)(x - 12)$ C) $(x + 4)(x - 3)$ D) prime

Objective: (12.3) Factor Trinomials of the Form $x^2 + bx + c$

154) $x^2 - 6x + 8$ 154) _____
 A) $(x - 4)(x - 2)$ B) $(x + 4)(x - 2)$ C) prime D) $(x + 4)(x + 1)$

Objective: (12.3) Factor Trinomials of the Form $x^2 + bx + c$

155) $x^2 + 13xy + 36y^2$ 155) _____
 A) $(x - 9y)(x + y)$ B) prime C) $(x + 9y)(x + 4y)$ D) $(x - 9y)(x + 4y)$

Objective: (12.3) Factor Trinomials of the Form $x^2 + bx + c$

156) $4x^2 + 12x - 40$ 156) _____
 A) $4(x + 2)(x - 5)$ B) $4(x - 2)(x + 5)$ C) $(4x + 8)(x - 5)$ D) $(x - 2)(4x + 20)$

Objective: (12.3) Factor Out the GCF, Then Factor $x^2 + bx + c$

Factor completely. If the polynomial is prime, state so.

157) $81x^2 - 64$ 157) _____
 A) $(9x + 8)^2$ B) prime C) $(9x + 8)(9x - 8)$ D) $(9x - 8)^2$

Objective: (12.5) Factor Difference of Two Squares

158) $4x^2 - \frac{4}{9}$ 158) _____
 A) $\left(2x + \frac{2}{3}\right)^2$ B) $\left(2x - \frac{2}{3}\right)^2$
 C) $\left(4x + \frac{4}{9}\right)\left(4x - \frac{2}{9}\right)$ D) $\left(2x + \frac{2}{3}\right)\left(2x - \frac{2}{3}\right)$

Objective: (12.5) Factor Difference of Two Squares

159) $81x^2 - 16y^2$ 159) _____
 A) $(9x + 4y)(9x - 4y)$ B) prime
 C) $(9x + 4y)^2$ D) $(9x - 4y)^2$

Objective: (12.5) Factor Difference of Two Squares

Solve the equation by factoring.

160) $x(4x + 12) = 0$ 160) _____
 A) $\left\{0, \frac{1}{3}\right\}$ B) $\{0, 3\}$ C) $\{0, -3\}$ D) $\left\{0, -\frac{1}{3}\right\}$

Objective: (12.7) Solve Quadratic Equations Using the Zero-Product Property

161) $5x(6x + 30) = 0$ 161) _____
 A) $\{0, -5\}$ B) $\{0, -5, 5\}$ C) $\left\{0, -\frac{1}{5}\right\}$ D) $\{0, 5\}$

Objective: (12.7) Solve Quadratic Equations Using the Zero-Product Property

162) $(y - 7)(9y + 26) = 0$

A) $\left\{-\frac{9}{26}, 7\right\}$

B) $\left\{-7, \frac{26}{9}\right\}$

C) $\left\{-7, \frac{9}{26}\right\}$

D) $\left\{-\frac{26}{9}, 7\right\}$

162) _____

Objective: (12.7) Solve Quadratic Equations Using the Zero-Product Property

163) $12n^2 + 44n = 0$

A) $\{0\}$

B) $\left\{-\frac{11}{3}, 44\right\}$

C) $\left\{-\frac{11}{3}\right\}$

D) $\left\{-\frac{11}{3}, 0\right\}$

163) _____

Objective: (12.7) Solve Quadratic Equations Using the Zero-Product Property

164) $x^2 + 2x - 48 = 0$

A) $\{-8, 6\}$

B) $\{8, -6\}$

C) $\{8, 6\}$

D) $\{-8, 1\}$

164) _____

Objective: (12.7) Solve Quadratic Equations Using the Zero-Product Property

165) $x^2 - 17x + 72 = 0$

A) $\{-9, -8\}$

B) $\{9, 8\}$

C) $\{72, 0\}$

D) $\{-9, 8\}$

165) _____

Objective: (12.7) Solve Quadratic Equations Using the Zero-Product Property

166) $2x^2 - 3x - 5 = 0$

A) $\left\{\frac{2}{5}, 0\right\}$

B) $\left\{\frac{2}{5}, -1\right\}$

C) $\left\{\frac{5}{2}, -1\right\}$

D) $\left\{\frac{2}{5}, 1\right\}$

166) _____

Objective: (12.7) Solve Quadratic Equations Using the Zero-Product Property

167) $x^2 - x = 42$

A) $\{6, 7\}$

B) $\{-6, -7\}$

C) $\{1, 42\}$

D) $\{-6, 7\}$

167) _____

Objective: (12.7) Solve Quadratic Equations Using the Zero-Product Property

168) $x^2 = 2x$

A) $\{2\}$

B) $\{0, -2\}$

C) $\{0, 2\}$

D) $\{-2\}$

168) _____

Objective: (12.7) Solve Quadratic Equations Using the Zero-Product Property

Find the function value.

169) Find $f(14)$ when $f(x) = 2x + 12$.

A) -16

B) 40

C) 29.2

D) 16

169) _____

Objective: (14.4) Find the Value of a Function

170) Find $f(5)$ when $f(x) = -7x + 6$.

A) -1

B) 41

C) -29

D) -35

170) _____

Objective: (14.4) Find the Value of a Function

171) Find $f(x - 3)$ when $f(x) = -5x - 7$.

A) $-5x - 8$

B) $-5x + 8$

C) $-5x + 5$

D) $-5x - 10$

171) _____

Objective: (14.4) Find the Value of a Function

- 172) Find $f(3)$ when $f(x) = x^2 + 3x - 4$. 172) _____
 A) -4 B) 4 C) 22 D) 14

Objective: (14.4) Find the Value of a Function

- 173) Find $f(-9)$ when $f(x) = |x| - 6$. 173) _____
 A) 3 B) -3 C) 15 D) -15

Objective: (14.4) Find the Value of a Function

- 174) $f(x) = \frac{x+5}{14x-10}$; $f(-10)$ 174) _____
 A) $\frac{1}{26}$ B) $-\frac{1}{12}$ C) $\frac{1}{30}$ D) $-\frac{1}{30}$

Objective: (14.4) Find the Value of a Function

- 175) $f(x) = \frac{x-10}{3x+13}$; $f(-4)$ 175) _____
 A) 0 B) 14 C) 1 D) -14

Objective: (14.4) Find the Value of a Function

- 176) $f(x) = \frac{x^2+3}{x^3+3x}$; $f(5)$ 176) _____
 A) $\frac{28}{125}$ B) $\frac{7}{32}$ C) $\frac{5}{28}$ D) $\frac{1}{5}$

Objective: (14.4) Find the Value of a Function

Find the domain of the function.

- 177) $f(x) = \frac{2x-3}{x+5}$ 177) _____
 A) $\{x | x \neq -5\}$ B) $\left\{x | x \neq -5, \frac{3}{2}\right\}$ C) $\left\{x | x \neq \frac{3}{2}\right\}$ D) $\{x | x \neq 5\}$

Objective: (14.4) Find the Domain of a Function

Evaluate the radical function at the indicated value.

- 178) $f(x) = \sqrt{2x-1}$ 178) _____
 $f(13)$
 A) 25 B) 26 C) 5 D) 5.1

Objective: (15.8) Evaluate Functions Whose Rule Is a Radical Expression

Solve the equation.

- 179) $\sqrt{2x} = 6$ 179) _____
 A) $\{3\}$ B) $\{72\}$ C) $\{12\}$ D) $\{18\}$

Objective: (15.9) Solve Radical Equations Containing One Radical

- 180) $\sqrt{x+5} = 6$ 180) _____
 A) $\{41\}$ B) $\{121\}$ C) $\{36\}$ D) $\{31\}$

Objective: (15.9) Solve Radical Equations Containing One Radical

Answer Key

Testname: AATFM0310FALL2014SULDE

- 1) A
- 2) A
- 3) B
- 4) B
- 5) B
- 6) C
- 7) C
- 8) C
- 9) A
- 10) A
- 11) A
- 12) C
- 13) D
- 14) B
- 15) C
- 16) D
- 17) C
- 18) B
- 19) D
- 20) C
- 21) B
- 22) D
- 23) D
- 24) A
- 25) C
- 26) B
- 27) B
- 28) A
- 29) D
- 30) D
- 31) A
- 32) A
- 33) A
- 34) B
- 35) C
- 36) D
- 37) C
- 38) A
- 39) A
- 40) A
- 41) A
- 42) B
- 43) C
- 44) C
- 45) C
- 46) C
- 47) C
- 48) B
- 49) C
- 50) D

Answer Key

Testname: AATFM0310FALL2014SULDE

- 51) C
- 52) D
- 53) A
- 54) C
- 55) D
- 56) D
- 57) A
- 58) D
- 59) A
- 60) C
- 61) B
- 62) C
- 63) C
- 64) A
- 65) A
- 66) C
- 67) D
- 68) C
- 69) B
- 70) A
- 71) A
- 72) B
- 73) D
- 74) B
- 75) B
- 76) C
- 77) C
- 78) A
- 79) B
- 80) A
- 81) C
- 82) B
- 83) A
- 84) D
- 85) B
- 86) A
- 87) D
- 88) C
- 89) B
- 90) B
- 91) B
- 92) D
- 93) D
- 94) C
- 95) C
- 96) A
- 97) B
- 98) B
- 99) C
- 100) A

Answer Key

Testname: AATFM0310FALL2014SULDE

- 101) A
- 102) B
- 103) A
- 104) A
- 105) B
- 106) B
- 107) D
- 108) C
- 109) D
- 110) D
- 111) D
- 112) A
- 113) A
- 114) D
- 115) C
- 116) C
- 117) B
- 118) C
- 119) A
- 120) A
- 121) C
- 122) D
- 123) C
- 124) B
- 125) A
- 126) D
- 127) B
- 128) B
- 129) C
- 130) C
- 131) A
- 132) C
- 133) D
- 134) A
- 135) B
- 136) A
- 137) D
- 138) B
- 139) A
- 140) D
- 141) C
- 142) B
- 143) B
- 144) D
- 145) B
- 146) C
- 147) A
- 148) B
- 149) C
- 150) C

Answer Key

Testname: AATFM0310FALL2014SULDE

- 151) D
- 152) A
- 153) A
- 154) A
- 155) C
- 156) B
- 157) C
- 158) D
- 159) A
- 160) C
- 161) A
- 162) D
- 163) D
- 164) A
- 165) B
- 166) C
- 167) D
- 168) C
- 169) B
- 170) C
- 171) B
- 172) D
- 173) A
- 174) C
- 175) D
- 176) D
- 177) A
- 178) C
- 179) D
- 180) D