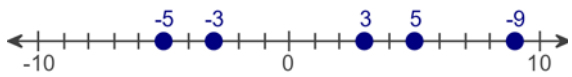
Student: _____	**Instructor:** Alfredo Alvarez	**Assignment:** Math 0410
Date: _____	**Course:** Math 0410 Spring 2018	Homework131bbbbtsilittle

1. Graph each integer in the list on the same number line.

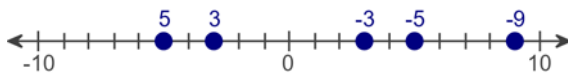
   3, − 3, 5, − 5, − 9

   Choose the correct graph below.

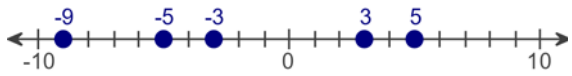
   A.

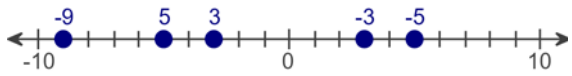
   B.

   C.

   D.

2. Evaluate 2x − y for the given replacement values.

   x = 6 and y = − 3

   2x − y = ____

3. Simplify.

   6 + 4 • 5 − 13

   6 + 4 • 5 − 13 = ____

4. Simplify.

   5 • 7 − 2 • 4 + (− 23)

   5 • 7 − 2 • 4 + (− 23) = ____

5. Simplify.

   7(− 15) ÷ [3(− 7) − 5(− 4)]

   The answer is ____.

6. Evaluate the following expression for x = − 2 and y = 5.

   $x^2 - y$

   $x^2 - y$ = ____

7. Find the average of the list of numbers.

   − 15, − 11, − 1, − 6, 8, 14, − 3

   The average is ____.

8. Solve. Check your solution.

$d - 7 = -19$

The solution is $d =$ ☐.

9. Solve.

$\frac{n}{9} = -8$

The solution is $n =$ ☐.

10. Simplify the expression by combining like terms.

$3x - 10x$

$3x - 10x =$ ☐

11. Multiply.

$-3(4r + 4)$

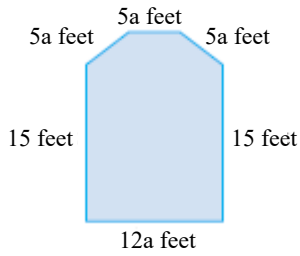
$-3(4r + 4) =$ ☐

12. Simplify the expression.

$4y - 2(y - 1) + 6$

$4y - 2(y - 1) + 6 =$ ☐

13. Find the perimeter of the figure.

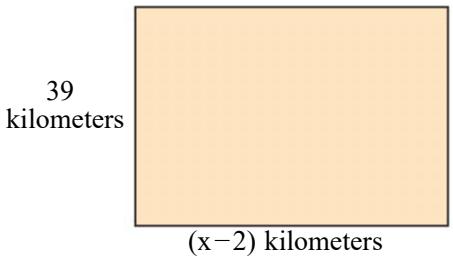


The perimeter is ☐ feet. (Simplify your answer.)

14. Find the perimeter of the figure.

The perimeter is ☐ inches. (Simplify your answer.)

15. Find the area of the rectangle.



The area is ( ) sq km.
(Simplify your answer.)

16. Find the area of a rectangular movie screen that is 44 feet long and 32 feet high. Use A = LW.

The area is ____ square feet.

17. A decorator wishes to put a wallpaper border around a rectangular room that measures 23 feet by 27 feet. Find the room's perimeter. Use P = 2L + 2W.

The perimeter of the room is ____ feet.

18. Solve and check the solution.

$2(2x - 4) = 5x$

x = ____

19. Solve the equation.

$-7(x + 6) - 44 = 2 - 53$

The answer is x = ____.

20. Solve the following equation.

$$\frac{x}{-3} = 2^2 - |-2| - (-9)$$

The solution is ____.
(Simplify your answer.)

21. Solve the equation.

$8x - 8 = 9x + 7$

x = ____

22. Solve the equation.

$-14x - 20 = -12x + 110$

x = ____

23. Solve the equation.

$5(y - 3) = 2y - 15$

$y =$ ☐

24. Solve the equation.

$3t - 7 = 4(t + 3)$

$t =$ ☐

25. Solve the equation.

$3(2c - 1) - 1 = 4c + 8$

$c =$ ☐

26. Solve the equation.

$5n + 10 = 25$

$n =$ ☐

27. Solve the equation.

$24 + 7t = 8(t + 3)$

$t =$ ☐

28. Multiply. Write the product in simplest form.

$-\frac{3}{2} \cdot \frac{5}{9}$

$-\frac{3}{2} \cdot \frac{5}{9} =$ ☐

29. Divide.

$\frac{7}{10} \div \frac{19}{20}$

Select the correct choice below and fill in any answer boxes in your choice.

○ **A.** $\frac{7}{10} \div \frac{19}{20} =$ _____ (Type an integer or a simplified fraction.)

○ **B.** The answer is undefined.

30. Perform the indicated operation.

$$\frac{8x^2}{21y} \div \frac{12x}{49y}$$

$\frac{8x^2}{21y} \div \frac{12x}{49y}$ = ☐

(Simplify your answer. Use integers or fractions for any numbers in the expression.)

31. Add and simplify.

$$\frac{1}{20} + \frac{11}{20}$$

$\frac{1}{20} + \frac{11}{20}$ = ☐ (Type an integer or a simplified fraction.)

32. Add and simplify.

$$\frac{1}{2} + \frac{1}{8}$$

$\frac{1}{2} + \frac{1}{8}$ = ☐ (Type an integer or a fraction.)

33. Subtract.

$$\frac{1}{6} - \frac{5}{8}$$

$\frac{1}{6} - \frac{5}{8}$ = ☐ (Type an integer or a fraction.)

34. Simplify the complex fraction.

$$\frac{\frac{3}{4}}{\frac{3}{5}}$$

$\frac{\frac{3}{4}}{\frac{3}{5}}$ = ☐ (Type an integer or a simplified fraction.)

35. Solve the equation and check the solution.

$-18 = \frac{3}{7}x$

x = ☐

36. Solve the equation.

$$\frac{m}{5} = \frac{m}{7} + 7$$

m = ☐ (Type an integer or a fraction. Simplify your answer.)

37. Solve the equation.

$$\frac{1}{3} - \frac{x}{8} = \frac{7}{24}$$

x = ☐ (Type an integer or a fraction. Simplify your answer.)

38. Solve.

$$\frac{x}{2} + 1 = \frac{1}{2}$$

x = ☐ (Type an integer or a fraction. Simplify your answer.)

39. Solve the equation.

$$\frac{a}{3} + 5 = \frac{a}{2} + 4$$

a = ☐ (Type an integer or fraction. Simplify your answer.)

40. Multiply.

$$-6.585 \times 1000$$

-6.585×1000 = ☐ (Type an integer or a decimal.)

41. Divide.

$$\frac{86.365}{100}$$

$\frac{86.365}{100}$ = ☐

42. Solve.

$$3.1x - 27 = 1.6x + 6$$

x = ☐ (Type an integer or a decimal.)

43. A 9-oz iced tea at a certain restaurant has 63 calories. How many calories are there in a 21-oz iced tea?

The 21-oz iced tea has ☐ calories.

44. Write the fraction as a percent.

$\frac{3}{5}$

$\frac{3}{5}$ = [ ] % (Simplify your answer.)

45. Write the percent as a decimal and a fraction.

People take a certain medication for a variety of reasons. The most common use is to prevent heart disease, accounting for 44% of all the medication's use.

44% written as a decimal is [ ].

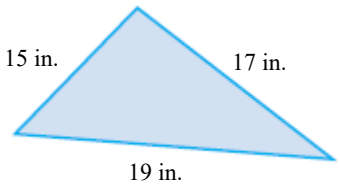
44% written as a fraction is [ ]. (Type an integer or a simplified fraction.)

46. A stereo normally priced at $800 is on sale for 35% off. Find the discount and the sale price.

The discount is $[ ].

The sale price is $[ ].

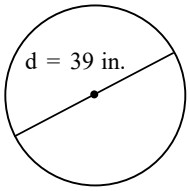
47. Find the perimeter of the following figure.



The perimeter is [ ] (1) [ ]

(1) ○ sq. in.
○ in.

48. Find the area of the given geometric figure. If the figure is a circle, give an exact area and then use 3.14 as an approximation for π to approximate the area.



The exact area of the circle is [ ] (1) [ ]
(Simplify your answer. Type an exact answer in terms of π.)

The approximate area of the circle is [ ] (2) [ ]
(Simplify your answer. Type an integer or decimal rounded to the nearest thousandth as needed.)

(1) ○ cu in.
○ in.
○ sq in.

(2) ○ cu in.
○ sq in.
○ in.

49. A pizzeria will bake and deliver a round pizza with a 10-inch diameter. Find the exact area of the top of the pizza and an approximation. Use 3.14 as an approximation for π.

The exact area is ____ (1) ____.
(Simplify your answer. Type an exact answer in terms of π.)

The approximate area is ____ (2) ____.
(Type an integer or decimal rounded to two decimal places as needed.)

(1) ○ inches ○ square inches ○ cubic inches

(2) ○ inches ○ square inches ○ cubic inches

50. Convert as indicated. When necessary, round to the nearest tenth of a degree.

158°F to degrees Celsius

158°F = ____ °C
(Round to the nearest tenth as needed.)

51. Solve the equation for x.

$-2(x-7)-7=7$

Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

○ **A.** x = ____ (Simplify your answer. Type an integer or a fraction.)
○ **B.** The solution is all real numbers.
○ **C.** There is no solution.

52. Solve the equation for y.

$3x+y=10$

y = ____

53. Solve the formula for the specified variable.

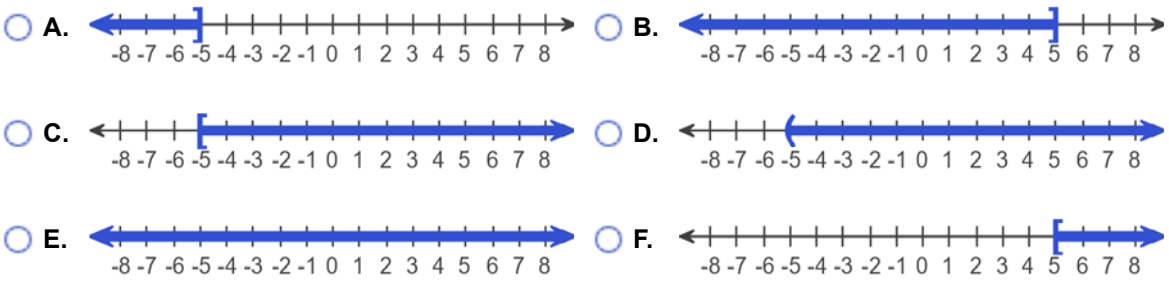
$W = X + Xyz$ for y

y = ____

54. Solve the inequality. Graph the solution set and write it in interval notation.

$-5x \leq 25$

Choose the correct graph below.



The solution to the inequality $-5x \leq 25$ is [ ].
(Type your answer in interval notation.)

55. Solve the inequality.

$-4x + 2 \geq 2(5 - x)$

The solution set is [ ]. (Type your answer in interval notation.)

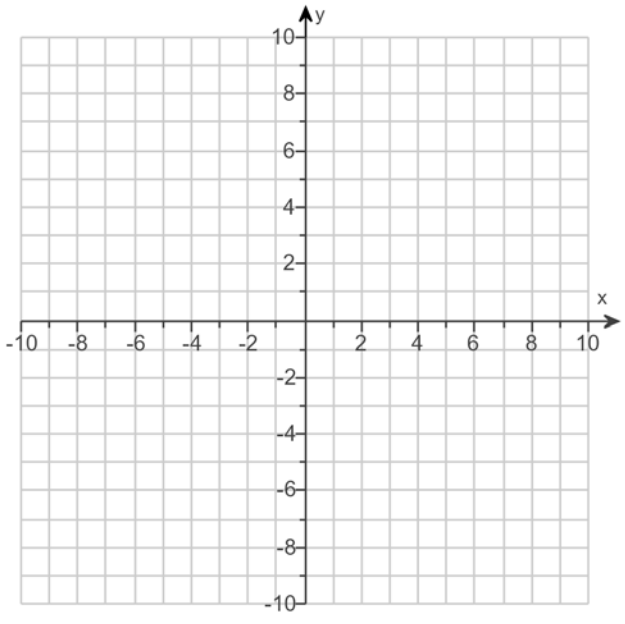
56. For the following equation, find three ordered pair solutions by completing the table. Then use the ordered pairs to graph the equation.

$y = -3x + 8$

Find three ordered pair solutions of the given equation.

x	y
0	
1	
2	

Use the graphing tool to graph the line.

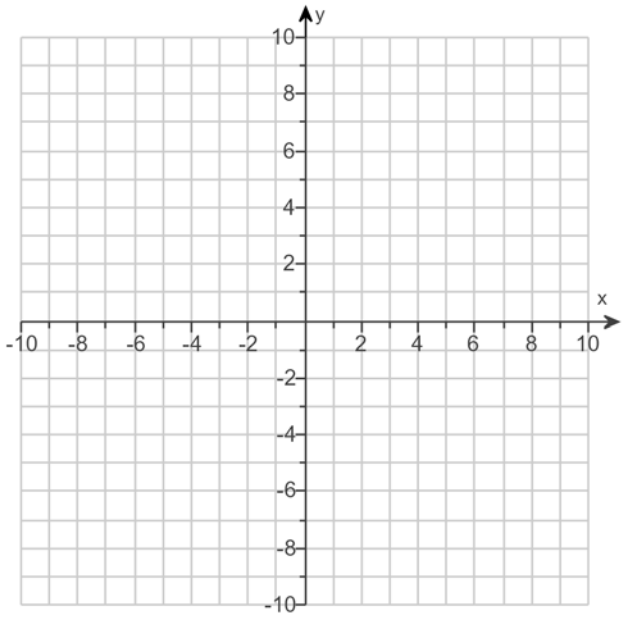


57.

Graph the linear equation.

$y = -6$

Use the graphing tool to graph the linear equation.

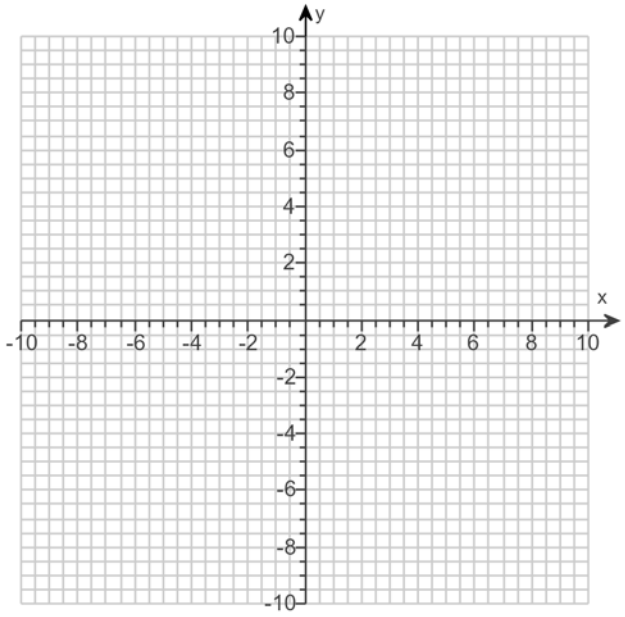


58.

Graph the linear equation.

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

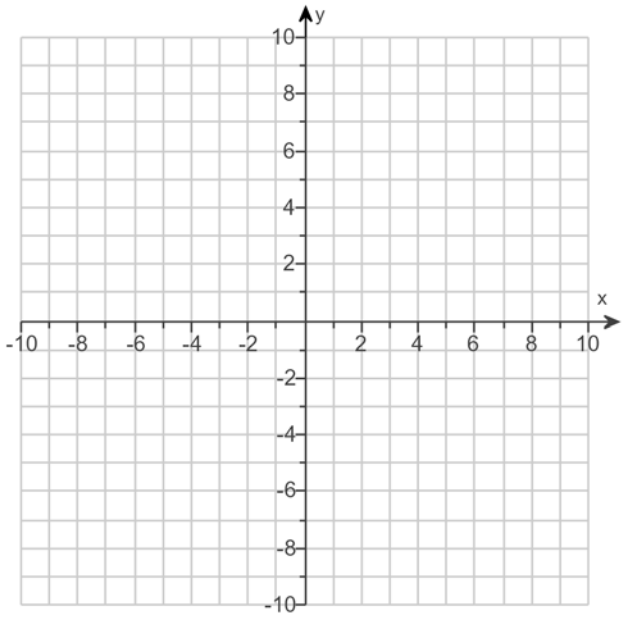
Use the graphing tool to graph the linear equation.



59. Plot the intercepts to graph the equation.

$4x - 2y = 4$

Use the graphing tool to graph the equation. Use the intercepts when drawing the line. If only one intercept exists, use it and another point to draw the line.



60. Find the slope of the line that goes through the given points.

$(-1, 1)$ and $(1, -2)$

Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

- **A.** The slope is _____. (Simplify your answer.)
- **B.** The slope is undefined.

61. Find the slope of the line.

$y = 5x + 3$

Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

- **A.** The slope is _____.
- **B.** The slope is undefined.

62. Find the slope of the line.

$6x + y = 3$

Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

- **A.** The slope is _____.(Simplify your answer. Type an integer or a fraction.)
- **B.** The slope is undefined.

63. Find the slope of the line.

$9x - 5y = 45$

Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

- **A.** The slope of the line is _____. (Simplify your answer.)
- **B.** The slope of the line is undefined.

64. Find the slope-intercept form of the line whose slope is 3 and that passes through the point $(-4,7)$.

The equation of the line is _____.
(Type your answer in slope-intercept form.)

65. Find the value of $x^2 - 3x + 1$ for the given value of x.

$x = -3$

The value of the polynomial for $x = -3$ is _____. (Simplify your answer.)

66. Determine whether each ordered pair is a solution of the system of linear equations.

$$\begin{cases} 3x - y = 9 \\ x + 2y = 17 \end{cases}$$

a. (5,6)
b. (4,3)

a. Is (5,6) a solution?

- Yes
- No

b. Is (4,3) a solution?

- Yes
- No

67. Solve the system of equations by the addition method.

$$\begin{cases} x + 3y = 3 \\ 5x + 2y = -24 \end{cases}$$

Select the correct choice below and, if necessary, fill in the answer box within your choice.

- **A.** The solution is _____. (Simplify your answer. Type an ordered pair.)
- **B.** There are infinitely many solutions; $\{(x,y) \mid x + 3y = 3\}$ or $\{(x,y) \mid 5x + 2y = -24\}$.
- **C.** There is no solution; {} or ∅.

68. Use the product rule to simplify the expression. Write the result using exponents.

$(-7y^5z^7)(2yz^2)$

$(-7y^5z^7)(2yz^2) =$ _____

69. Use the product rule to simplify the expression. Write the results using exponents.

$(3z^{11})(-4z^8)(z^2)$

$(3z^{11})(-4z^8)(z^2) =$ ☐

70. Use the power rule to simplify the expression.

$(x^2)^6$

$(x^2)^6 =$ ☐

(Simplify your answer. Type exponential notation with positive exponents.)

71. Use the power rule and the power of a product rule to simplify the expression.

$(2n^4)^5$

$(2n^4)^5 =$ ☐

72. Use the power rule and the power of a product or quotient rule to simplify the expression.

$(-6a^4b^5c)^2$

$(-6a^4b^5c)^2 =$ ☐ (Type your answer using exponential notation.)

73. Use the power rule, the power of a product rule, and the power of a quotient rule to simplify the expression.

$\left(\frac{9x^4z}{y^3}\right)^3$

$\left(\frac{9x^4z}{y^3}\right)^3 =$ ☐

74. Simplify the expression.

$b^4b^3b^6$

$b^4b^3b^6 =$ ☐

75. Simplify the expression. Assume that all bases are not equal to 0.

$\frac{4x^3y^2z}{xyz}$

$\frac{4x^3y^2z}{xyz} =$ ☐

76. If $P(x) = x^2 + x + 5$, find $P(7)$.

$P(7) =$ ☐

77. Simplify the following expression by combining the like terms.

$-8a^2 - 8ab + 9b^2 - 3a^2 - 6ab + 3b^2$

$-8a^2 - 8ab + 9b^2 - 3a^2 - 6ab + 3b^2 =$ ☐

78. Subtract.

$(8y^2 + 4y - 7) - (-2y + 9)$

$(8y^2 + 4y - 7) - (-2y + 9) =$ ☐ (Simplify your answer.)

79. Add.

$(-3y^2 - 9y) + (8y^2 + y - 5)$

$(-3y^2 - 9y) + (8y^2 + y - 5) =$ ☐ (Do not factor.)

80. Multiply.

$(x + 4)(x^3 - 5x + 6)$

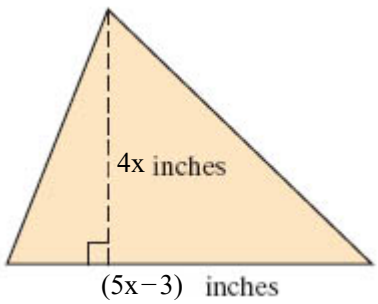
$(x + 4)(x^3 - 5x + 6) =$ ☐

81. Multiply.

$-4x(x^2 + 7x - 3)$

$-4x(x^2 + 7x - 3) =$ ☐ (Simplify your answer.)

82. Find the area of the triangle.



☐ sq in.

83. Multiply using the FOIL method.

$5(y - 3)(9y - 1)$

$5(y - 3)(9y - 1) =$ ☐

84. Multiply.

$(a-4)(a+4)$

$(a-4)(a+4) =$ [ ] (Simplify your answer.)

85. Use a special product to multiply, if possible.

$(d-5b)^2$

Choose the expression equivalent to $(d-5b)^2$.

- **A.** $d^2+10db+25b^2$
- **B.** d^2+25b^2
- **C.** $d^2-10db+25b^2$
- **D.** d^2-25b^2
- **E.** none of these

86. Simplify the following expression.

6^{-2}

$6^{-2} =$ [ ] (Type an integer or a simplified fraction.)

87. Simplify the following expression.

$\left(\frac{1}{4}\right)^{-5}$

$\left(\frac{1}{4}\right)^{-5} =$ [ ] (Type an integer or a simplified fraction.)

88. Simplify. Use positive exponents for any variables. Assume that all bases are not equal to 0.

$\frac{b^{-1}}{b^{-7}}$

$\frac{b^{-1}}{b^{-7}} =$ [ ] (Use positive exponents only.)

89. Simplify the following expression. Write the result using positive exponents only.

$\left(-5x^5y^{-4}\right)\left(2x^{-2}y^2\right)$

$\left(-5x^5y^{-4}\right)\left(2x^{-2}y^2\right) =$ [ ] (Type exponential notation with positive exponents.)

90. Simplify the expression. Assume that all bases are not equal to 0.

$\left(a^{-2}b^{9}\right)^{-4}$

$\left(a^{-2}b^{9}\right)^{-4} =$ ☐ (Use positive exponents only.)

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91. Write the number in scientific notation.

33,000

33,000 = ☐ (Use the multiplication symbol in the math palette as needed.)

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92. Write the number in scientific notation.

0.00000115

0.00000115 = ☐
(Use the multiplication symbol in the math palette as needed.)

---

93. Divide.

$\dfrac{12p^{7}+8p^{6}}{4p}$

$\dfrac{12p^{7}+8p^{6}}{4p} =$ ☐

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94. Find the GCF for the given list.

16, 44

The GCF is ☐.

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95. Factor out the greatest common factor from the polynomial.

$7x+21$

$7x+21 =$ ☐ (Type your answer in factored form.)

---

96. Factor.

$4xy-18x^{2}$

$4xy-18x^{2} =$ ☐ (Factor completely.)

---

97. Factor the following polynomial.

$-36x^{5}y^{4}-45x^{8}y^{3}$

$-36x^{5}y^{4}-45x^{8}y^{3} =$ ☐ (Factor completely.)

---

98. Factor the trinomial completely.

$x^2 - 2x - 48$

Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

- **A.** $x^2 - 2x - 48 =$ _____ (Type your answer in factored form.)
- **B.** The polynomial is prime.

99. Factor the following binomial completely.

$49x^2 - 225y^2$

Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

- **A.** $49x^2 - 225y^2 =$ _____ (Factor completely.)
- **B.** The polynomial is prime.

100. Solve the equation.

$(x - 8)(x + 2) = 0$

x = [ ]
(Simplify your answer. Type each solution only once. Use a comma to separate answers as needed.)

101. Solve the equation.

$6x(x - 9) = 0$

x = [ ] (Use a comma to separate answers as needed.)

102. Solve the equation.

$(6x + 7)(3x - 8) = 0$

x = [ ]
(Simplify your answer. Type each solution only once. Use a comma to separate answers as needed.)

103. Solve the equation.

$x^2 - 12x + 20 = 0$

x = [ ]
(Simplify your answer. Type each solution only once. Use a comma to separate answers as needed.)

104. Solve.

$x^2 + 2x - 8 = 0$

x = [ ]
(Simplify your answer. Type each solution only once. Use a comma to separate answers as needed.)

105. Solve.

$(x+3)(x-6)=4x$

$x=$ ☐

(Simplify your answer. Type each solution only once. Use a comma to separate answers as needed.)

106. Solve the equation.

$x^3-10x^2+16x=0$

$x=$ ☐

(Simplify your answer. Type each solution only once. Use a comma to separate answers as needed.)

107. Find the domain of the rational function.

$$R(x)=\frac{-3+7x}{x^3+x^2-2x}$$

Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

- **A.** The domain is $\{x \mid x \text{ is a real number and } x \neq$ ☐$\}$.
  (Simplify your answer. Type an integer or a fraction. Use a comma to separate answers as needed.)
- **B.** The domain is {x | x is a real number}.

108. Simplify the expression.

$$\frac{x+5}{x^2-5x-50}$$

Select the correct choice below and fill in any answer boxes in your choice.

- **A.** $\frac{x+5}{x^2-5x-50}=$ ☐ (Simplify your answer.)
- **B.** The expression cannot be simplified.

109. Find the product and simplify if possible.

$$\frac{x^2-36}{x^2-4x-12}\cdot\frac{x+2}{x}$$

$\frac{x^2-36}{x^2-4x-12}\cdot\frac{x+2}{x}=$ ☐ (Simplify your answer.)

110. Add the rational expressions.

$$\frac{7m}{8n} + \frac{9m}{8n}$$

$\frac{7m}{8n} + \frac{9m}{8n} =$ ☐ (Simplify your answer.)

111. Subtract the rational expressions.

$$\frac{8x-2}{x^2+7x-30} - \frac{7x+1}{x^2+7x-30}$$

$\frac{8x-2}{x^2+7x-30} - \frac{7x+1}{x^2+7x-30} =$ ☐ (Simplify your answer.)

112. Solve the equation.

$$6 - \frac{6}{y} = 8$$

Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

- **A.** The solution is _____.
  (Type an integer or a simplified fraction. Use a comma to separate answers as needed.)
- **B.** There is no solution.

113. Solve the equation.

$$\frac{x-6}{5} = \frac{x}{7}$$

Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

- **A.** The solution is _____.
  (Type an integer or a simplified fraction. Use a comma to separate answers as needed.)
- **B.** There is no solution.

114. Solve the equation.

$$\frac{2}{2y-5} = -2$$

Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

- **A.** $y =$ _____
  (Type an integer or a simplified fraction. Use a comma to separate answers as needed.)
- **B.** There is no solution.

115. Solve the equation.

$$\frac{5}{y} + \frac{1}{7} = \frac{4}{7y}$$

Select the correct answer below and, if necessary, fill in the answer box to complete your choice.

- **A.** y = _____ (Use a comma to separate answers if needed.)
- **B.** There is no solution.

116. Simplify by factoring. Assume that all variables under radicals represent nonnegative numbers.

$$\sqrt{49x^6}$$

Select the correct choice below and, if necessary, fill in the answer box that completes your choice.

- **A.** $\sqrt{49x^6}$ = _____
  (Type an exact answer, using radicals as needed.)
- **B.** The square root is not a real number.

117. Find the cube root.

$$\sqrt[3]{64}$$

Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

- **A.** $\sqrt[3]{64}$ = _____
- **B.** The cube root is not a real number.

118. Simplify the radical.

$$\sqrt{\frac{49}{81}}$$

Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

- **A.** $\sqrt{\frac{49}{81}}$ = _____ (Type an integer or a simplified fraction.)
- **B.** The square root is not a real number.

119. Identify the domain and then graph the function, using the table to the right.

$f(x) = \sqrt{x - 8}$

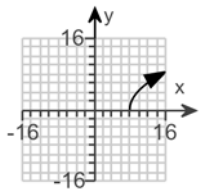
x	f(x)
8	
9	
12	
17	

The domain of the function f(x) is ☐.
(Type your answer in interval notation.)

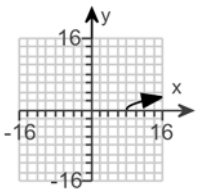
Complete the table to the right.

Graph the function. Choose the correct graph to the right.

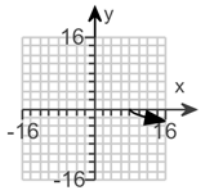
A.



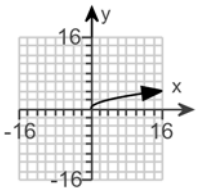
B.



C.



D.



120. Use radical notation to write the expression. Simplify if possible.

$$\left(\frac{1}{256}\right)^{\frac{1}{4}}$$

Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

A. $\left(\frac{1}{256}\right)^{\frac{1}{4}} =$ _____
(Simplify your answer. Type an exact answer, using radicals as needed.)

B. The answer is not a real number.

121. Use radical notation to rewrite the expression. Simplify if possible.

$1024^{2/5}$

Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

A. $1024^{2/5} =$ _____
(Simplify your answer. Type an exact answer, using radicals as needed.)

B. The answer is not a real number.

122. Simplify by factoring.

$\sqrt{45}$

$\sqrt{45} =$ ☐
(Type an exact answer, using radicals as needed.)

123. Solve.

$\sqrt{x-7} = 5$

Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

- **A.** The solution(s) is(are) x = _____.
  (Use a comma to separate answers as needed.)
- **B.** The solution set is ∅.

124. Solve.

$\sqrt{x+4} = \sqrt{2x-1}$

Select the correct choice below and fill in any answer boxes present in your choice.

- **A.** x = _____ (Simplify your answer. Use a comma to separate answers as needed.)
- **B.** There is no solution.

125. Use the square root property to solve the equation. The equation has real number solutions.

$(x+7)^2 = 36$

x = [ ]
(Simplify your answer. Type an exact answer, using radicals as needed. Use a comma to separate answers as needed.)

126. The area of a square room is 289 square feet. Find the dimensions of the room.

The side of the room is [ ] feet long.

127. Use the quadratic formula to solve the equation.

$m^2 - 7m + 10 = 0$

m = [ ]
(Simplify your answer. Type an exact answer, using radicals as needed. Use a comma to separate answers as needed.)

128. Use the quadratic formula to solve the equation.

$m^2 - 4m + 3 = 0$

m = [ ]
(Simplify your answer. Type an exact answer, using radicals as needed. Use a comma to separate answers as needed.)

129. Use the quadratic formula to solve the equation. The equation has real number solutions.

$5y = 3y^2 - 2$

y = [ ]
(Type a simplified answer, using fractions and radicals as needed. Use a comma to separate answers as needed.)

130. Use the quadratic formula to solve the equation.

$x^2 + 4x + 4 = 0$

x = ☐

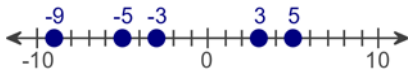
(Simplify your answer. Type an exact answer, using radicals as needed. Use a comma to separate answers as needed.)

131. Use the quadratic formula to solve the equation.

$x^2 + 4x + 29 = 0$

The solution(s) is/are x = ☐.

(Simplify your answer. Type an exact answer, using radicals and i as needed. Use a comma to separate answers as needed.)

1. C. 

2. 15

3. 13

4. 4

5. 105

6. − 1

7. − 2

8. − 12

9. − 72

10. − 7x

11. − 12r − 12

12. 2y + 8

13. 27a + 30

14. − 20x + 60

15. 39x − 78

16. 1408

17. 100

18. − 8

19. -5

20. -33

21. -15

22. -65

23. 0

24. -19

25. 6

26. 3

27. 0

28. $-\frac{5}{6}$

29. A. $\frac{7}{10} \div \frac{19}{20} =$ $\frac{\mathbf{14}}{\mathbf{19}}$ (Type an integer or a simplified fraction.)

30. $\frac{14x}{9}$

31. $\frac{3}{5}$

32. $\frac{5}{8}$

33. $-\frac{11}{24}$

34. $\frac{5}{4}$

35. -42

36. $\frac{245}{2}$

37. $\frac{1}{3}$

38. -1

39. 6

40. -6585

41. 0.86365

42. 22

43. 147

44. 60

45. 0.44

$\frac{11}{25}$

46. 280.00

520.00

47. 51

(1) in.

48. 380.25π

(1) sq in.

1193.985

(2) sq in.

---

49. 25π

(1) square inches

78.5

(2) square inches

---

50. 70

---

51. A. x = **0** (Simplify your answer. Type an integer or a fraction.)

---

52. $10 - 3x$

---

53. $\frac{W - X}{Xz}$

54.

C.

$[-5, \infty)$

---

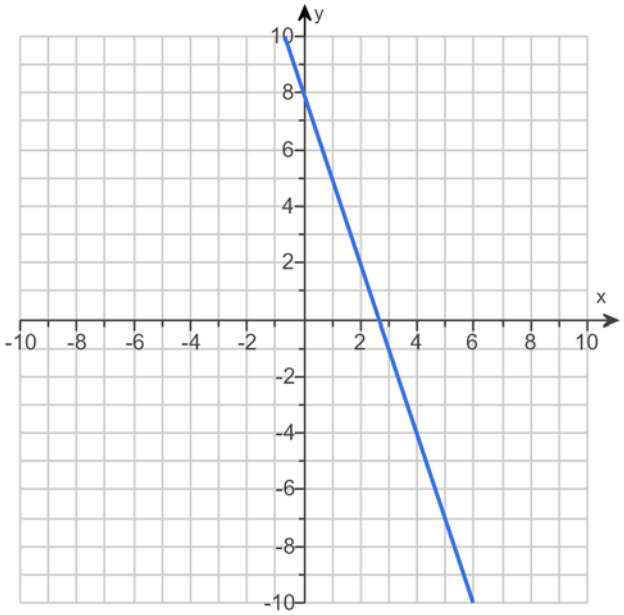
55. $(-\infty, -4]$

---

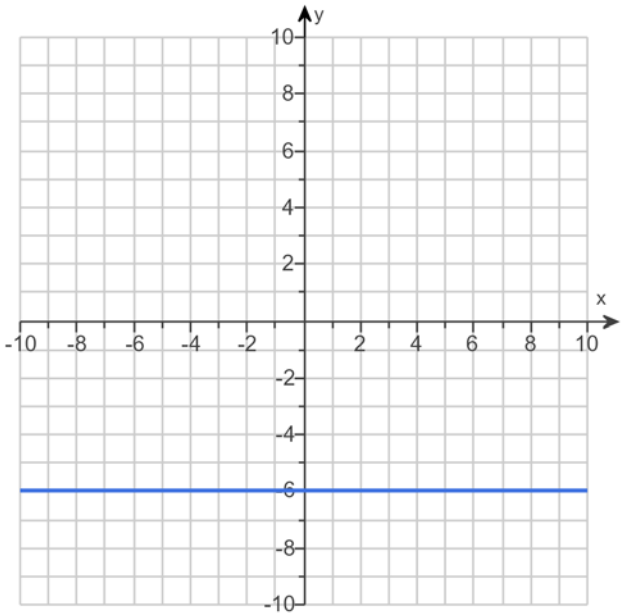
56. 8

5

2


y
x
10
8
6
4
2
-2
-4
-6
-8
-10
-10
-8
-6
-4
-2
2
4
6
8
10

57.


y
x
10
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-10
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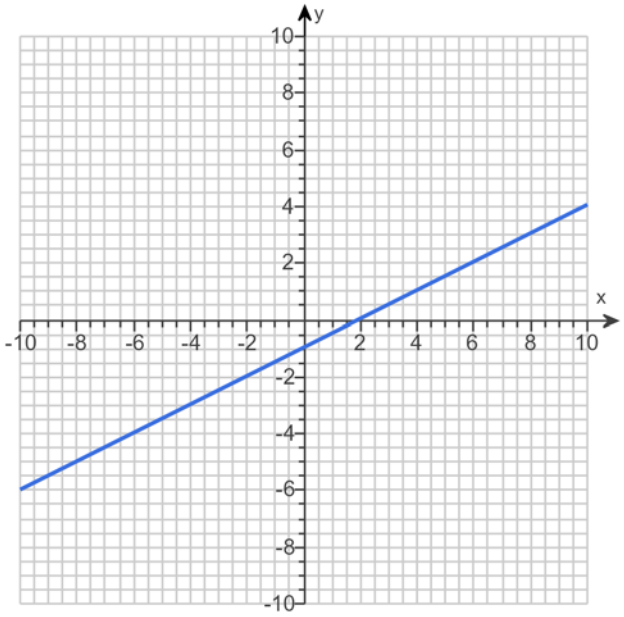
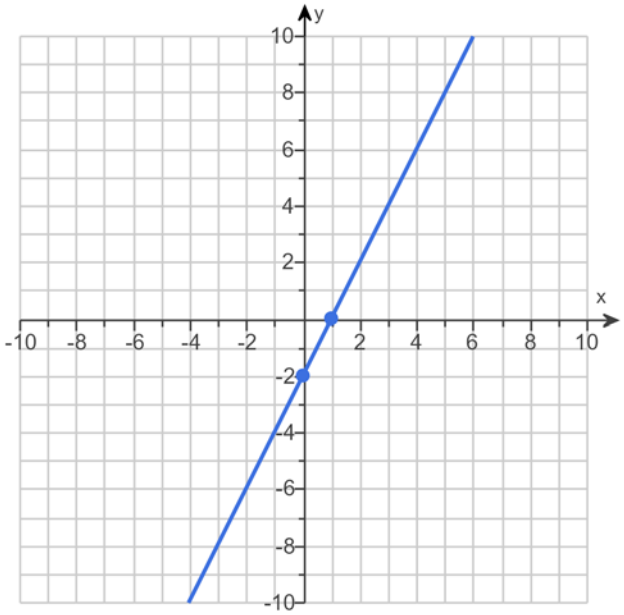
-8
-6
-4
-2
2
4
6
8
10

58.



59.



60. A. The slope is $-\frac{3}{2}$. (Simplify your answer.)

61. A. The slope is 5.

62. A. The slope is −6.(Simplify your answer. Type an integer or a fraction.)

63. A. The slope of the line is $\frac{9}{5}$. (Simplify your answer.)

64. $y = 3x + 19$

65. 19

66. Yes

No

67. A. The solution is $(-6,3)$. (Simplify your answer. Type an ordered pair.)

68. $-14y^6z^9$

69. $-12z^{21}$

70. x^{12}

71. $32n^{20}$

72. $36a^8b^{10}c^2$

73. $\dfrac{729x^{12}z^3}{y^9}$

74. b^{13}

75. $4x^2y$

76. 61

77. $-11a^2 - 14ab + 12b^2$

78. $8y^2 + 6y - 16$

79. $5y^2 - 8y - 5$

80. $x^4 + 4x^3 - 5x^2 - 14x + 24$

81. $-4x^3 - 28x^2 + 12x$

82. $10x^2 - 6x$

83. $45y^2 - 140y + 15$

84. $a^2 - 16$

85. C. $d^2 - 10db + 25b^2$

86. $\frac{1}{36}$

87. 1024

88. b^6

89. $-\frac{10x^3}{y^2}$

90. $\frac{a^8}{b^{36}}$

91. 3.3×10^4

92. 1.15×10^{-6}

93. $3p^6 + 2p^5$

94. 4

95. $7(x + 3)$

96. $2x(2y - 9x)$

97. $9x^5y^3\left(-4y - 5x^3\right)$

98. A. $x^2 - 2x - 48 =$ **(x + 6)(x − 8)** (Type your answer in factored form.)

99. A. $49x^2 - 225y^2 =$ **(7x + 15y)(7x − 15y)** (Factor completely.)

100. $8, -2$

101. $9,0$

102. $-\frac{7}{6}, \frac{8}{3}$

103. $2,10$

104. $-4,2$

105. $9, -2$

106. $0,2,8$

107. A. The domain is $\{x \mid x$ is a real number and $x \neq$ **0, − 2,1** $\}$.
(Simplify your answer. Type an integer or a fraction. Use a comma to separate answers as needed.)

108. A. $\frac{x+5}{x^2 - 5x - 50} =$ $\frac{\mathbf{1}}{\mathbf{x - 10}}$ (Simplify your answer.)

109. $\frac{x+6}{x}$

110. $\frac{2m}{n}$

111. $\frac{1}{x+10}$

112. A. The solution is **−3**.
(Type an integer or a simplified fraction. Use a comma to separate answers as needed.)

---

113. A. The solution is **21**.
(Type an integer or a simplified fraction. Use a comma to separate answers as needed.)

---

114. A. y = **2** (Type an integer or a simplified fraction. Use a comma to separate answers as needed.)

---

115. A. y = **−31** (Use a comma to separate answers if needed.)

---

116. A. $\sqrt{49x^6}$ = **$7x^3$** (Type an exact answer, using radicals as needed.)

---

117. A. $\sqrt[3]{64}$ = **4**

---

118. A. $\sqrt{\frac{49}{81}}$ = **$\frac{7}{9}$** (Type an integer or a simplified fraction.)

---

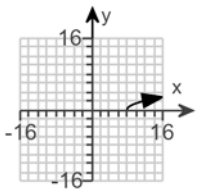
119. [8,∞)

0

1

2

3



B.

---

120. A. $\left(\frac{1}{256}\right)^{\frac{1}{4}}$ = **$\frac{1}{4}$** (Simplify your answer. Type an exact answer, using radicals as needed.)

---

121. A. $1024^{2/5}$ = **16** (Simplify your answer. Type an exact answer, using radicals as needed.)

---

122. $3\sqrt{5}$

---

123. A. The solution(s) is(are) x = **32**. (Use a comma to separate answers as needed.)

---

124. A. x = **5** (Simplify your answer. Use a comma to separate answers as needed.)

---

125. $-1, -13$

---

126. 17

---

127. 5,2

---

128. 1,3

---

129. $2, -\frac{1}{3}$

---

130. -2

---

131. $-2+5i, -2-5i$
