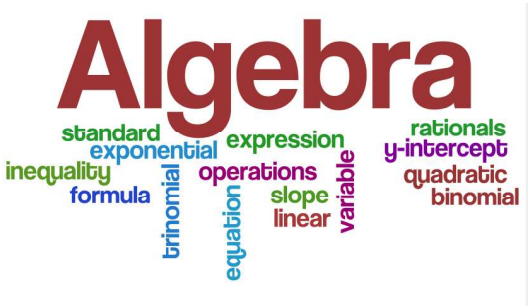


8th Grade Algebra – Summer Assignment

Attached is your math summer packet that is to be completed and turned in to your math teacher on the first full day of school. Please be sure that if you were placed in the **8th grade Algebra** class that you have downloaded the correct file for this class.

All problems are to be completed on the packet showing ***ALL*** your work. You may use a calculator to do your work, however, you must write down what you are putting into the calculator on your paper.

This assignment will be graded upon your return to school and you will be tested within the first two weeks on all the material in the packet. The packet does not include any new material that you have not already been taught.

CURRENT OLOL STUDENTS: Your textbook is available on your iPad.

Should you have any questions regarding your textbook on the iPad, you may email vbalaguer-chavez@ololjaguars.org for assistance.

Have a wonderful summer and happy calculating!

Name: _____ **Class:** _____A_____B____ **Date:** _____

Number Missed: _____/____ **Grade:** _____

8th Grade Algebra Summer Packet

Evaluate the expression for the given values of the variables.

1. $q - 10$ when $q = 13$

2. $34.5x$ when $x = 4.2$

3. c^5 when $c = 3$

4. $2 + y^3$ when $y = 3$

5. $x^2 + y$ when $x = 4$ and $y = 3$

6. $(a + b)^3$ when $a = 3$ and $b = 5$

7. $7 + x + (-3)$ when $x = 2$

8. $4x^2 + 2$ when $x = 2$

9. $|x + 10|$ when $x = -12$

10. $|2x + 1|$ when $x = \frac{3}{2}$

11. $\frac{x-3}{4}$ when $x = 4$

12. $\frac{5-x}{6}$ when $x = 3$

Evaluate.

13. 2^6

14. 5^3

15. $8 - 6 + 4$

16. $16 \div (4 - 2) - 3$

17. $|-4.1|$

18. $-6.4 + (-3.1)$

19. $-3-(-8)$

20. $-9.1-|-7.5|$

21. $11-(-4)+(-3)$

22. $-15+(-10)+25$

23. $(-14)(-2)$

24. $-42\div(-14)$

25. $(-3)(-5)(4)$

26. $26\div(-2)$

27. $\sqrt{81}$

28. $-\sqrt{100}$

29. $\pm\sqrt{400}$

30. $\frac{\sqrt{x}}{2}$ when $x = 64$

Identify the terms, like terms, coefficients, and constant terms. Then simplify the expression.

____ 31. $4b + 7 - 5b - 19$

a. terms: $4b$, -7, $5b$, 19
like terms: $4b$ and $5b$, -7 and 19
coefficients: 4, 5
constant terms: -7, 19
simplified expression: $9b + 12$

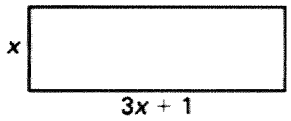
b. terms: $4b$, 7, $-5b$, -19
like terms: $4b$ and $-5b$, 7 and -19
coefficients: 4, -5
constant terms: 7, -19
simplified expression: $-b - 12$

c. terms: $4b$, -7, $5b$, -19
like terms: $4b$ and $5b$, -7 and -19
coefficients: 4, 5
constant terms: -7, -19
simplified expression: $9b - 26$

d. terms: $4b$, 7, $-5b$, 19
like terms: $4b$ and $-5b$, 7 and 19
coefficients: 4, -5
constant terms: 7, 19
simplified expression: $-b + 26$

32. $3n - 13 - 5n + 6n$

33. The perimeter of a rectangle is the sum of the lengths of its four sides. Find the perimeter of the rectangle below when $x = 2$ ft.



Check whether the given number is a solution of the equation or inequality.

34. $3x + 5 = 17$; 2

35. $4y - 7 = 5$; 3

36. $2m - 3 < 4$; 2

37. $5 + 2n \geq 12$; 0

38. Make an input-output table for the function $y = 2x + 4$. Use x-values of 1, 2, 3, 4, and 5.

____ 39. Which function rule matches the input-output table?

Input, x	1	2	3	4	5
Output, y	7	11	15	19	23

a. $y = 3 + 5x$ b. $y = 3 + 4x$ c. $y = 4 + 3x$ d. $y = 2 + 4x$

____ 40. Which equation corresponds to the values in the table below?

Input, x	1	2	3	4	5
Output, y	17	26	35	44	53

a. $y = 8x + 9$ b. $y = 9x + 7$ c. $y = 9x + 8$ d. $y = 10x + 8$

41. Find the range of the function.

Input	Output
1	11
9	6
4	5

42. Make an input-output table to represent the function. Use 1, 2, 3, 4, and 5 as the domain.
$y = 3x + 9$

43. The selling price of a certain video is \$6 more than the price the store paid. If the selling price is \$23, find the price the store paid.

44. You deposit \$70 in a savings account that pays an annual interest rate of 3%. How much simple interest would you earn in 2.5 years?

Write the verbal phrase as an algebraic expression. Use x for the variable in your expression.

45. Sum of 8 and a number

46. Ten less than a number

Find the unit rate.

47. 3 tablespoons for 1.5 servings

48. $10.99 for 12 slices of pizza

Write the verbal sentence as an equation or an inequality.

49. The sum of three and x is ten.

50. Four is greater than six times a number t.

Write an equation or inequality to model the situation.

51. The distance d to school is $1\frac{1}{2}$ miles more than the distance p to the park.

52. The perimeter P of a square is greater than or equal to the difference of a number n and two.

Make an input-output table for the function. Graph the function. Use 0, 1, 2, and 3 as the domain.

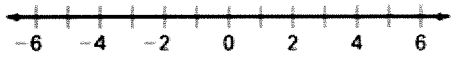
53. $y = x + 2$

54. $4 - 2x$

Graph the numbers on a number line.

55. 4.5 and –3.4

56. $\frac{1}{3}$ and $-2\frac{1}{3}$



Write the numbers in increasing order.

57. 1.99, –3.45, 2.01, –3.42, 0.99

58. $2\frac{1}{2}$, 2.15, -2.25, $1\frac{7}{10}$, $1\frac{2}{5}$

59. $\sqrt{36}$, 5, $-\sqrt{25}$, $-\sqrt{100}$, $-\sqrt{7}$

60. $-\sqrt{10}$, $\sqrt{3}$, 1, -3, 2.1

61. A marketing company had a profit of $5625.14 in January, a loss of $4250.35 in February, and a profit of $1475.55 in March. Did the company make a profit during the 3-month period? If so, what was the profit?

Simplify.

62. $(-4)(-x)$

63. $(-2)\left(-y\right)\left(y\right)$

64. $7(x-5)$

65. $(3-x)4$

66. $3(2-4x)$

67. $-(10-7x)$

68. $\left(3+2y\right)(-3)+y$

69. $7x+5(1-x)$

70. $40x \div \frac{1}{8}$

71. $\frac{c}{3} \div \frac{5}{6}$

72. $\frac{8x+6}{2}$

73. $\frac{14x+21}{7}$

____ 74. Bill wants to simplify the following expression.
$5(3x-2y)+2(x+2y)-3(3x-2y)$
Which of the following expressions is equivalent to the expression above?
a. $8x$ b. $8x-12y$ c. $8xy$ d. $8x-8y$

75. Simplify $6x + 5(x - 7)$.

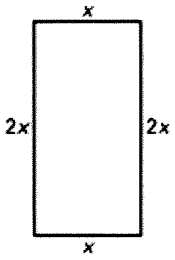
76. Simplify the expression $3(2 - x) - 2x$.

77. Simplify the expression $2(2 - x) - 3x$.

78. Simplify the expression $9(12+2x)+5(6+6x)$.

79. Simplify the expression $-2[2x + 8(-3 + x)]$.

80. Write and simplify an expression for the perimeter of the figure.



Solve the equation.

81. $\frac{5}{x} = \frac{8}{15}$

82. $\frac{x}{9} = \frac{4}{15}$

83. $\frac{4}{x+1} = \frac{3}{x+2}$

84. $\frac{4}{x+3} = \frac{8}{12-x}$

85. $x - 12 = 13$

86. $-16 = 9 + x$

87. $17x = 85$

88. $-16x = 48$

89. $35a = -70$

90. $\frac{b}{2} = 14$

91. $-15x + 71 = 26$

92. $7y - 35 = 14$

93. $\frac{1}{4}x - 5 = 27$

94. $14x + 3x - 40 = -11$

95. $40 - 14y = 6y$

96. $3x - 8 = -3x + 4$

97. $12(y-3) = 15y$

98. Simple Interest Formula: $P = Irt$
Solve for t.

99. Pressure (in pounds per square foot) on a diver at a depth of d feet: $P = 64d + 2112$
Solve for d.

100. 18 is what percent of 60?

101. What distance is 24% of 710 miles?

102. 2% of what amount is $200?

103. 85% of 300 is what number?

Solve the equation.

104. $-3x + 25 + x + 21 = 2$

105. $\frac{25x}{5} - 7x = 12$

106. $-\frac{21x}{7} - 5x = 24$

107. $\frac{9x}{3} + 11x = 28$

108. $\frac{1}{2}(y+1) = 9$

109. $\frac{1}{4}(y+3) = 7$

110. $\frac{1}{4}(3y+2) = 7$

111. $5n - 2(n-2) = -11$

112. $4n - 2(3-n) = -13$

113. $5n - 2(2-n) = -7$

114. $6z + 3 = 8z - 5$

115. $3 - 4z = -5 + 8z$

116. $3x - 3 = x + 4$

117. $x - 7 = -2x - 5$

118. $7z + 5 = 9z - 3$

119. $5x + 14 - 2x = 9 - (4x + 2)$

120. $3x + 17 - 5x = 12 - (6x + 3)$

121. $7x - 29 - 21x = 3 - (12 + 2x)$

122. $8x - 9 = x + 9$

Solve the equation. Round the solution to two decimal places.

123. $18.3y - 7.6 = 8.4y - 14.6$

124. $14.2y - 12.5 = 6.4y - 13.7$

125. $7x + 1.7 = 1.7x + 22.9$

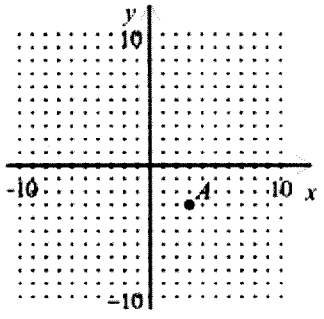
126. $27.4y - 11.2 = 7.3y - 12.6$

127. The total bill (parts and labor) for the repair of a car was \$458. The cost of parts was \$339. The cost of labor was \$34 per hour. Write and solve an equation to find the number of hours of labor.

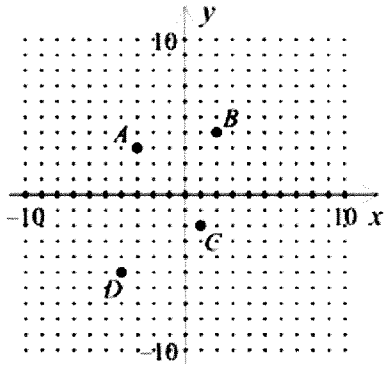
128. The sum of three numbers is 123. The second number is 9 less than two times the first number. The third number is 6 more than three times the first number. Find the three numbers.

129. A local gym charges nonmembers \$10 per hour to use the tennis courts. Members pay a yearly fee of \$300 and \$4 per hour for using the tennis courts. Write and solve an equation to find how many hours you must use the tennis courts to justify becoming a member.

130. What are the coordinates of point A?



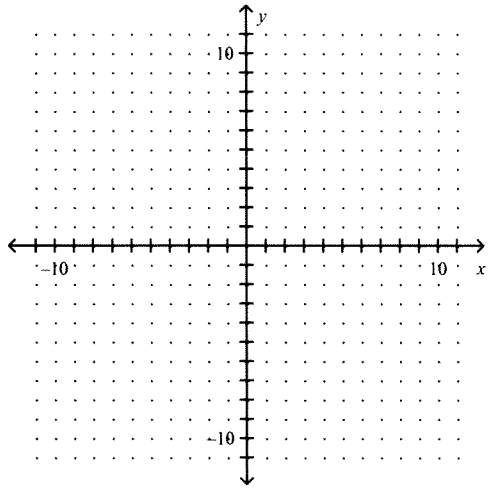
131. Name the coordinates of the points A, B, C, and D.



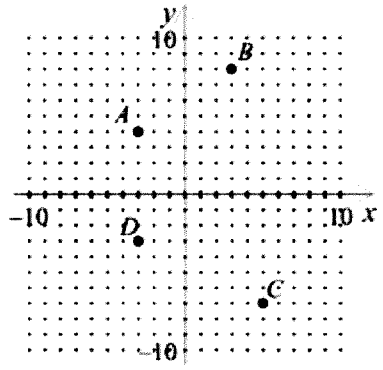
Make a table of values for the equation when $x = -1$, $x = 0$, and $x = 1$. Then graph the equation in a coordinate plane.

132. $y = 5x$

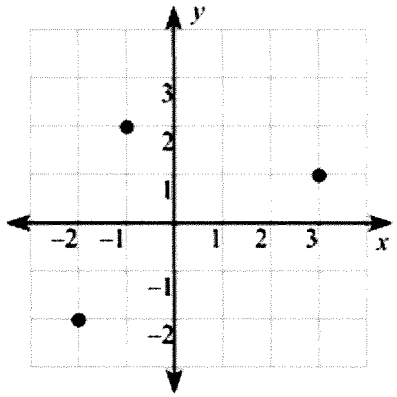
133. $y = -2x + 1$



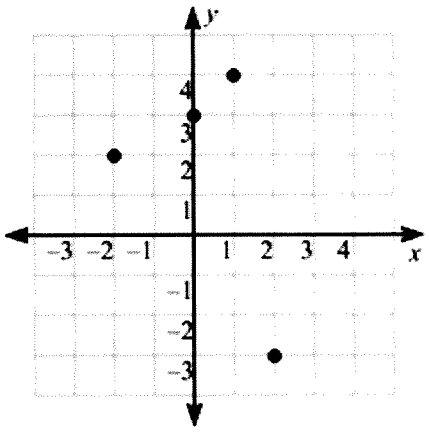
134. Name the coordinates of the points A, B, C, and D.



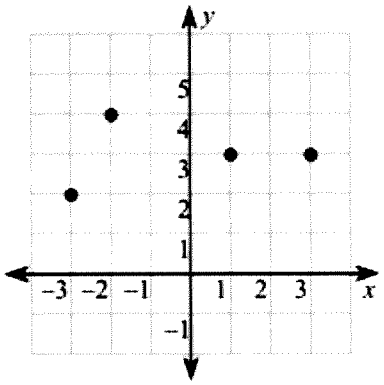
135. Write the ordered pairs that are represented by the points in the coordinate plane below.



136. Write the ordered pairs that are represented by the points in the coordinate plane below.



137. Write the ordered pairs that are represented by the points in the coordinate plane below.



138. Plot the points (3, 0), (2, –3), and (–2, –2).

139. Plot the points (4, 0), (–2, –3), (3, 1), and (–2, 2).

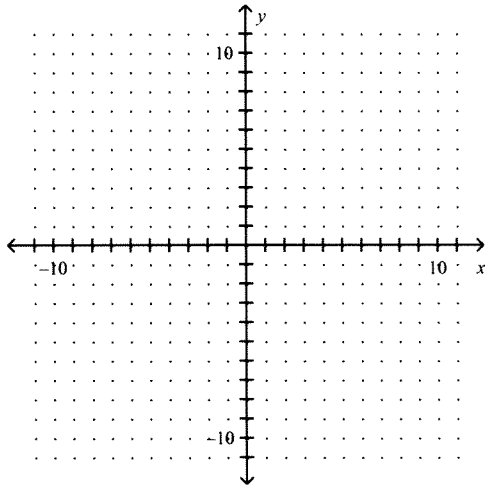
140. Plot the points (0, 3), (2, –3), (–3, 1), and (–2, 2).

141. Make a table of values for the equation $y = 5x + 1$ using x-values of 1, 2, 3, 4, and 5. Then graph the equation.

142. **Complete the table, then plot the points.**

$y = -4x$

x	y
−2	
−1	
0	
1	
2	

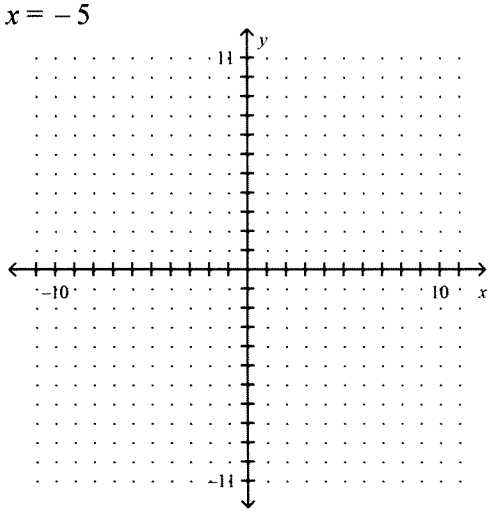


143. **Graph the equation.**

$y = 1$

144. **Graph the equation.**

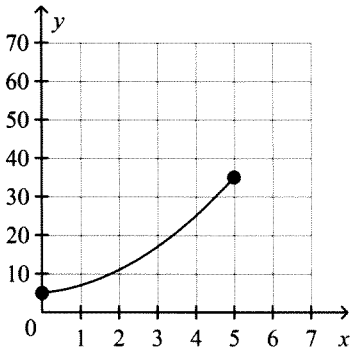
$x = -5$



Graph the equation.

145. $4x - 8 = 0$

____ 146. What is the range of the function in the graph?



a. $5 \le y \le 35$
b. $0 \le y \le 5$
c. $0 \le x \le 5$
d. $5 \le x \le 35$

Graph:

147. $y = 2x$

148. What is the domain of the relation {(0, 4), (4, 9), (5, 2), (10, 4)}

149. Which point, $\left(\frac{5}{2}, 3\right)$ or $\left(\frac{3}{2}, 20\right)$, is on the graph of $2x - \frac{2}{3}y = 3$?

150. Which point, $\left(\frac{5}{2}, 3\right)$ or $\left(\frac{3}{2}, 2\right)$, is on the graph of $2x - \frac{2}{3}y = \frac{5}{3}$?

151. Which point, $\left(\frac{5}{2}, -3\right)$ or $\left(-\frac{3}{2}, 6\right)$, is on the graph of $2x - \frac{2}{3}y = -7$?

152. Sketch the graphs of $x = -5$ and $y = 3$. Find the point at which the two graphs intersect.

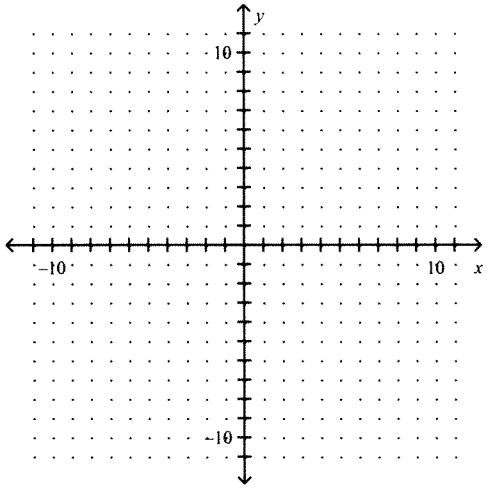
153. Sketch the graphs of $x = -2$ and $y = -4$. Find the point at which the two graphs intersect.

154. Sketch the graphs of $x = -3$ and $y = 4$. Find the point at which the two graphs intersect.

155. Complete the table. Then graph the function.

$$y = \frac{7}{8}x - 1$$

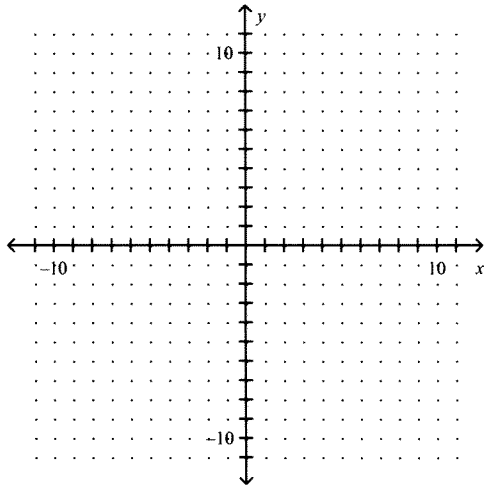
x	−3	−2	0	2	3
y	?	?	?	?	?



156. Complete the table. Then graph the function.

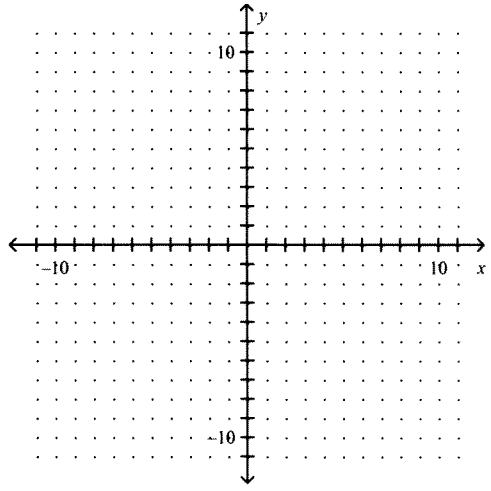
$$y = \frac{2}{3}x - 2$$

x	−3	−2	0	2	3
y	?	?	?	?	?

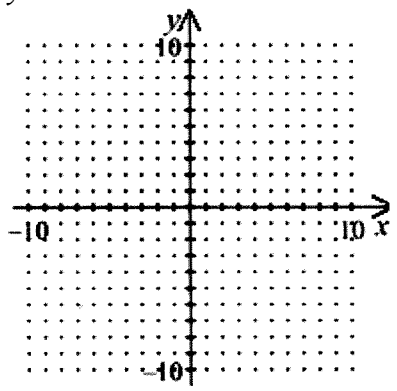


Graph the function.

157. $y = 4x$



158. $y = -2x$



159. A music club membership costs \$19.00 and \$5.00 per CD. This situation can be modeled by the equation $y = 5x + 19$.
Graph the equation.

Identify the domain and range of the relation.

160.

x	y
2	12
5	9
8	6
11	3

161. $(1, 3), (2, 6), (3, 9), (4, 12), (5, 15)$

162. $(-2, 4), (-2, 13), (12, 13), (10, 10), (3, 8)$

Write the table as a set of ordered pairs. Identify the domain and range of the relation.

163.

x	y
–8	4
–5	–4
0	3
9	–8

____ 164. Is 112 prime or composite?
a. composite b. prime

Find the greatest common factor of the numbers.

____ 165. 35, 63, and 84
a. 7 b. 14 c. 16 d. 11

Find the least common multiple of the set of numbers.

____ 166. 6, 9, and 12
a. 648 b. 36 c. 18 d. 324

____ 167. Identify the fraction that is equivalent to $\frac{5}{7}$.
a. $\frac{25}{28}$ b. $\frac{20}{35}$ c. $\frac{30}{35}$ d. $\frac{25}{35}$

Write the fraction in simplest form.

____ 168. $\frac{148}{264}$

a. $\frac{36}{66}$ b. $\frac{37}{64}$ c. $\frac{37}{66}$ d. $\frac{36}{64}$

Write as a decimal.

____ 169. $4\frac{1}{12}$

a. 16 b. $0.\overline{3}$ c. $4.08\overline{3}$ d. $0.08\overline{3}$

Write as a fraction in simplest form.

____ 170. 0.32

a. $\frac{32}{99}$ b. $\frac{3}{10}$ c. $\frac{8}{25}$ d. $\frac{99}{32}$

____ 171. 0.111111. . .

a. $\frac{1}{10}$ b. $\frac{11}{100}$ c. $\frac{1}{9}$ d. $\frac{11}{1000}$

Add or subtract. Write each answer in simplest form.

____ 172. $\frac{2}{6} - \frac{1}{9}$

a. $\frac{4}{9}$ b. $\frac{1}{18}$ c. $\frac{1}{54}$ d. $\frac{2}{9}$

____ 173. $6\frac{1}{3} + 5\frac{5}{6}$

a. $11\frac{4}{27}$ b. $12\frac{1}{6}$ c. $11\frac{8}{15}$ d. $12\frac{10}{27}$

Multiply or divide. Write your answer in simplest form.

____ 174. $\frac{3}{6} \times \frac{7}{10}$

a. $\frac{7}{20}$ b. $2\frac{1}{10}$ c. $\frac{5}{7}$ d. $3\frac{1}{2}$

____ 175. $\frac{5}{12} \div \frac{2}{8}$

a. $3\frac{1}{3}$ b. $1\frac{2}{3}$ c. 20 d. $\frac{5}{48}$

Write as a percent.

____ 176. 0.63

a. 0.063% b. 6.3% c. 630% d. 63%

____ 177. $\frac{1}{5}$

a. 50% b. 5% c. 20% d. 2%

____ 178. Write 50% as a decimal.

a. 500 b. 5 c. 0.5 d. 5000

____ 179. Write 670% as a fraction or mixed number in simplest form.

a. $\frac{10}{67}$ b. 67 c. $6\frac{7}{10}$ d. $\frac{1}{67}$

____ 180. Write $9 \cdot 9 \cdot 9 \cdot 9 \cdot 9 \cdot 9 \cdot 9$ using an exponent.

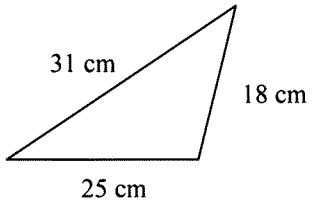
a. 99^7 b. 7^9 c. 9^7 d. $9 \cdot 7$

____ 181. Write 5^2 in standard form.

a. 7 b. 25 c. 10 d. 52

Find the perimeter of the figure.

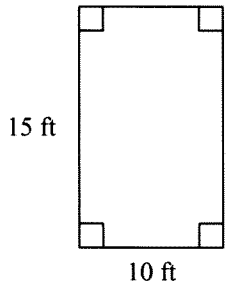
____ 182.



Drawing not to scale

a. 74 cm b. 80 cm c. 68 cm d. 87 cm

____ 183.

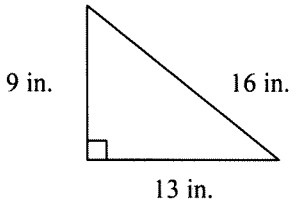


Drawing not to scale

a. 25 ft b. 60 ft c. 50 ft d. 150 ft

Find the area of the figure.

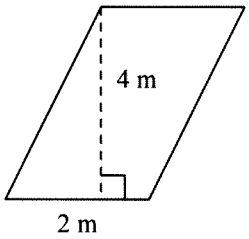
____ 184.



Drawing not to scale

a. 38 in.^{2} b. 117 in.^{2} c. 468 in.^{2} d. 58.5 in.^{2}

____ 185.

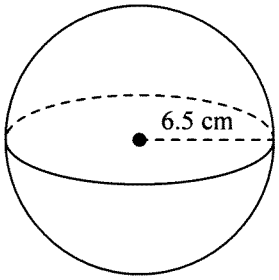


Drawing not to scale

a. 8 m^2 b. 16 m^2 c. 4 m^2 d. 12 m^2

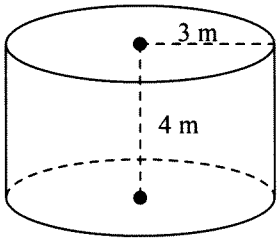
Find the volume of the solid. Round to the nearest tenth if necessary. Use 3.14 for π.

____ 186.



a. 3449.3 cm^3 b. 176.9 cm^3 c. 646.7 cm^3 d. 1149.8 cm^3

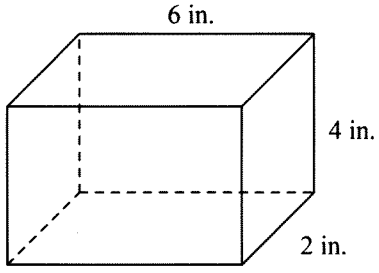
____ 187.



Drawing not to scale

a. 226.1 m^3 b. 37.7 m^3 c. 113 m^3 d. 150.7 m^3

____ 188.

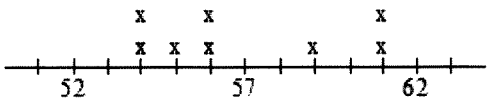


Drawing not to scale

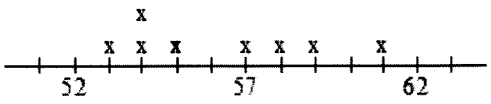
a. 24 $in.^3$ b. 96 $in.^3$ c. 48 $in.^3$ d. 16 $in.^3$

____ 189. Display the set of data in a line plot.
58, 55, 54, 61, 56, 54, 61, 55, 53, 54

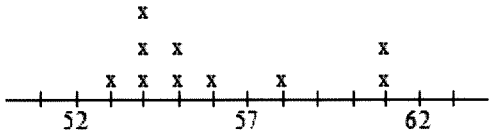
a.



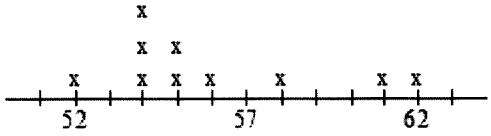
c.



b.



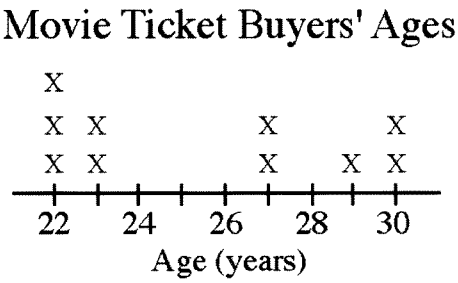
d.



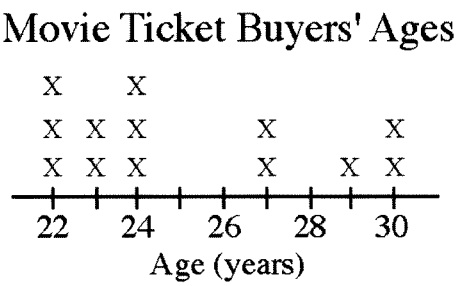
____ 190. The frequency table below shows the ages of the first ten people in line at the movie theater. Make a line plot that shows the same data as the frequency table.

Ages	Frequency
22	3
23	2
27	2
29	1
30	2

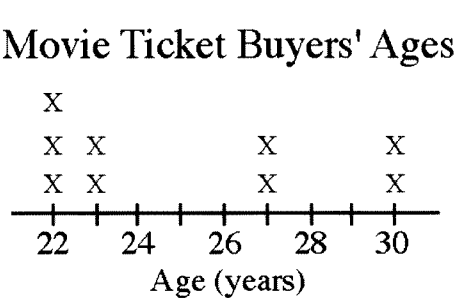
a.



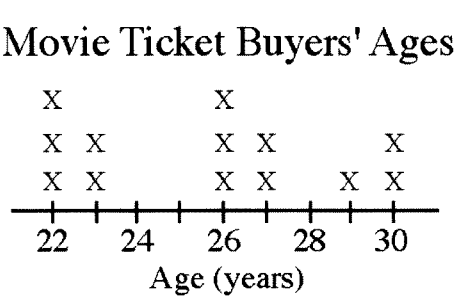
c.



b.



d.



8th Grade Algebra Summer Packet - 2019
Answer Section

1. 3
2. 144.9
3. 243
4. 29
5. 19
6. 512
7. 6
8. 18
9. 2
10. 4
11. $\frac{1}{4}$
12. $\frac{1}{3}$
13. 64
14. 125
15. 6
16. 5
17. 4.1
18. −9.5
19. 5
20. −16.6
21. 12
22. 0
23. 28
24. 3
25. 60
26. −13
27. 9
28. −10
29. ±20
30. 4
31. B
32. terms: $3n, -13, -5n, 6n$
    like terms: $3n, -5n, 6n$
    coefficients: $3, -5, 6$
    constant terms: -13
    simplified expression: $4n - 13$
33. 18 ft
34. no
35. yes
36. yes

37. no

38.

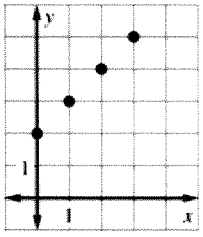
Input, x	1	2	3	4	5
Output, y	6	8	10	12	14

39. B
40. C
41. The range is the collection of the output values: 11, 6, and 5.
42.

Input	1	2	3	4	5
Output	12	15	18	21	24

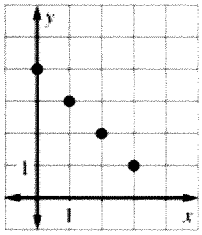
43. \$17
44. \$5.25
45. $8+x$
46. $x-10$
47. 2 tablespoons per serving
48. about \$.92 per slice
49. $3+x=10$
50. $4>6t$
51. $d=\frac{3}{2}+p$
52. $P \geq n-2$
53.

Input	Output
0	2
1	3
2	4
3	5

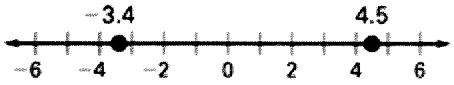


54.

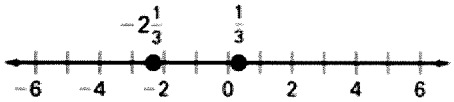
Input	Output
0	4
1	2
2	0
3	-2



55. Answer:



56. Answer:



57. –3.45, –3.42, 0.99, 1.99, 2.01

58. $-2.25,\ 1\frac{2}{5},\ 1\frac{7}{10},\ 2.15,\ 2\frac{1}{2}$

59. $-\sqrt{100}, -\sqrt{25}, -\sqrt{7}, 5, \sqrt{36}$

60. $-\sqrt{10}, -3, 1, \sqrt{3}, 2.1$

61. yes; $2850.34

62. $4x$

63. $2y^2$

64. $7x - 35$

65. $12 - 4x$

66. $6 - 12x$

67. $-10 + 7x$

68. $-9 - 5y$

69. $2x + 5$

70. $320x$

71. $\frac{2c}{5}$

72. $4x + 3$

73. $2x + 3$

74. A

75. $11x - 35$

76. $6 - 5x$

77. $4 - 5x$

78. $138 + 48x$

79. $-20x + 48$
80. $6x$
81. $x = \frac{75}{8}$
82. $x = 2.4$
83. $x = -5$
84. $x = 6$
85. 25
86. -25
87. 5
88. -3
89. -2
90. 28
91. 3
92. 7
93. 128
94. 3
95. 2
96. 2
97. 12
98. $t = \frac{I}{Pr}$
99. $d = \frac{P - 2112}{64}$
100. 30%
101. 170.4 mi
102. \$10,000
103. 255
104. 22
105. $x = -6$
106. $x = -3$
107. $x = 2$
108. 17
109. 25
110. $\frac{26}{3}$
111. -5
112. $-\frac{7}{6}$
113. $-\frac{3}{7}$
114. 4
115. $\frac{2}{3}$

116. $\frac{7}{2}$

117. $\frac{2}{3}$

118. 4

119. –1

120. –2

121. $-\frac{5}{3}$

122. $\frac{18}{7}$

123. –0.71

124. –0.15

125. $x = 4$

126. –0.07

127. $458 = 34x + 339$; 3.5 h

128. 21, 33, 69

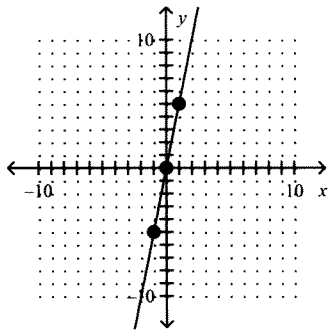
129. $10x = 300 + 4x$; at least 50 hours

130. (3, –3)

131. A (–3, 3), B (2, 4), C (1, –2), D (–4, –5)

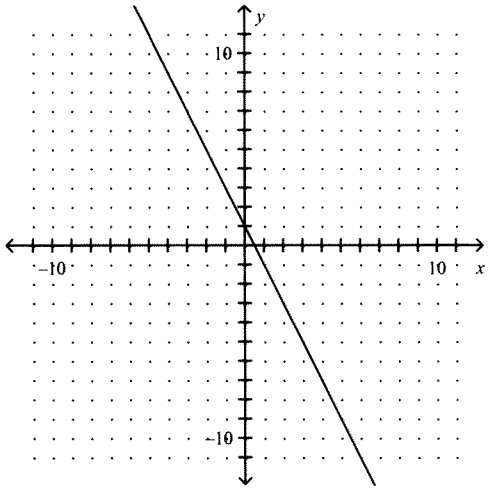
132.

x	–1	0	1
y	–5	0	5



133.

x	−1	0	1
y	3	1	−1



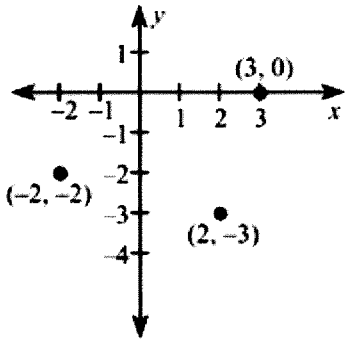
134. $A(-3, 4)$, $B(3, 8)$, $C(5, -7)$, $D(-3, -3)$

135. $(3, 1)$, $(-2, 2)$, $(-1, -2)$

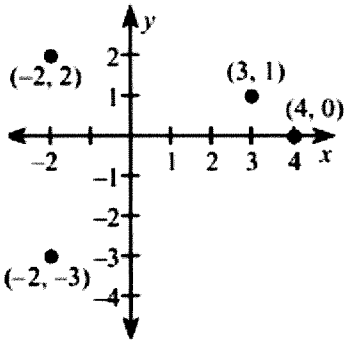
136. $(2, -3)$, $(1, 4)$, $(0, 3)$, $(-2, 2)$

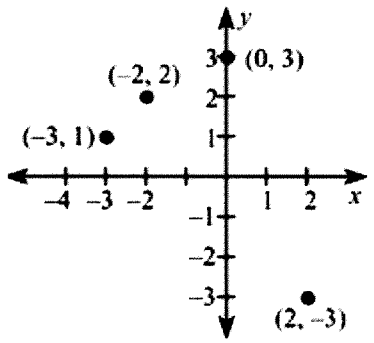
137. $(1, 3)$, $(-3, 2)$, $(3, 3)$, $(-2, 4)$

138.



139.

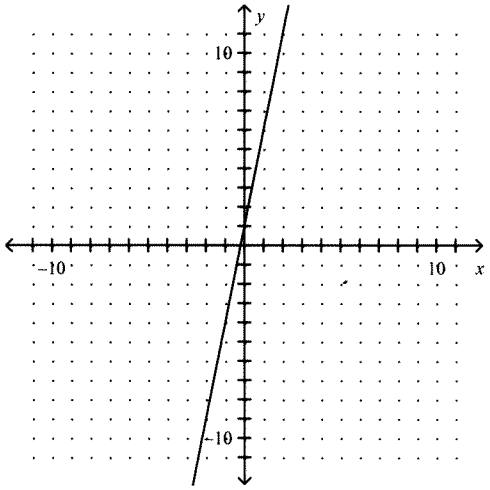




140.

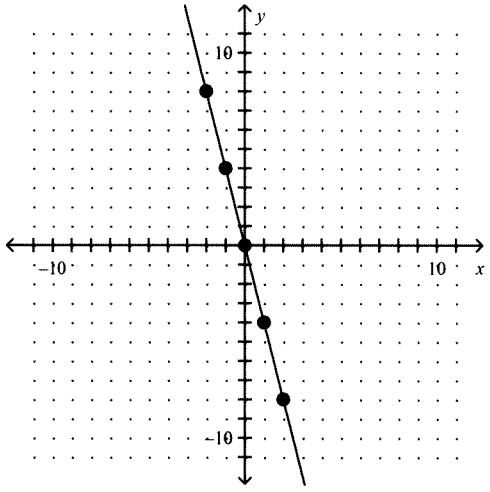
141.

x	1	2	3	4	5
y	6	11	16	21	26

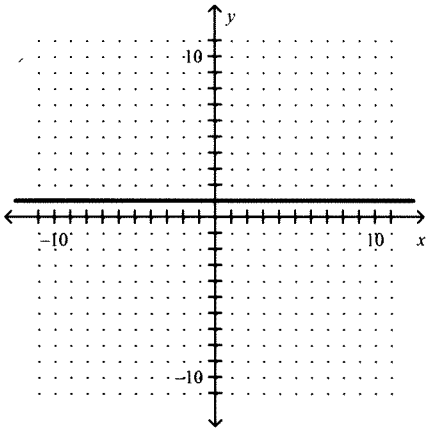


142.

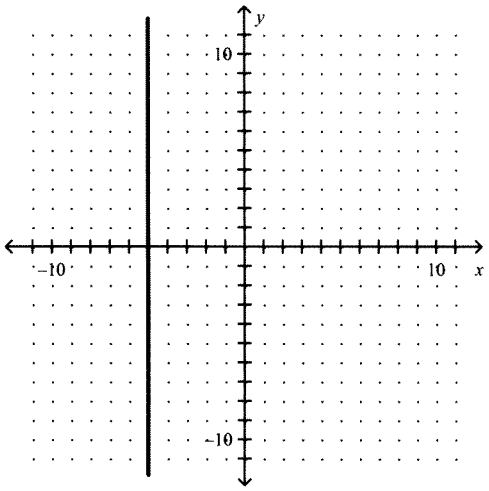
x	y
–2	8
–1	4
0	0
1	–4
2	–8



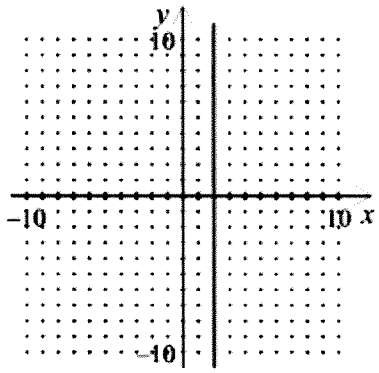
143.



144.

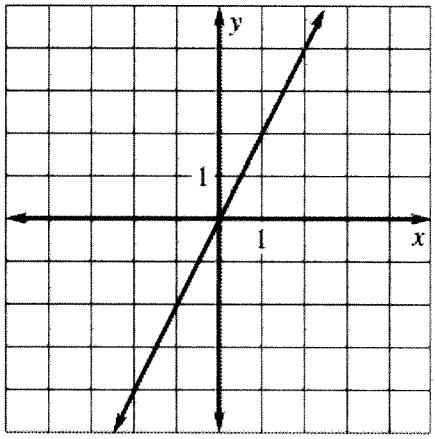


145.



146. A

147.



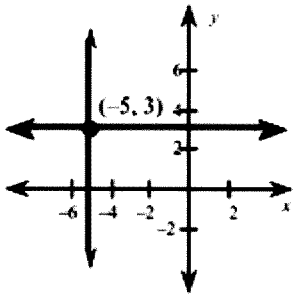
148. 0, 4, 5, 10

149. $\left(\frac{5}{2}, 3\right)$

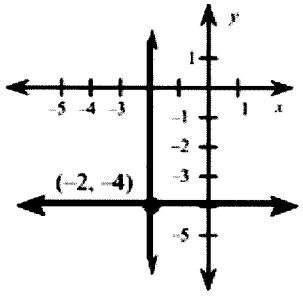
150. $\left(\frac{3}{2}, 2\right)$

151. $\left(-\frac{3}{2}, 6\right)$

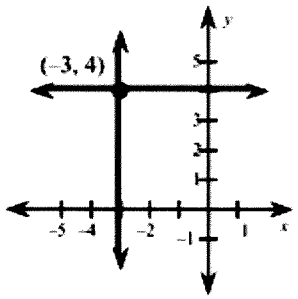
152. (–5, 3)



153. (–2, –4)

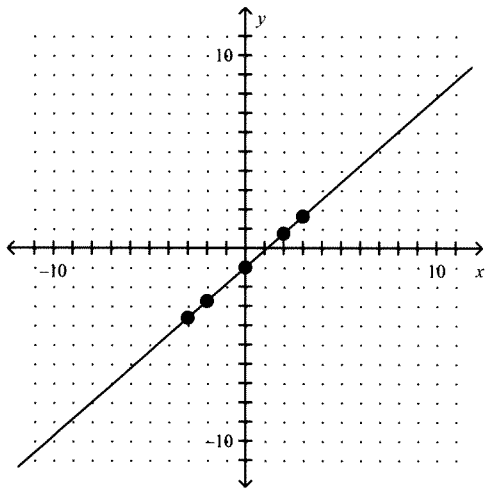


154. (–3, 4)



155.

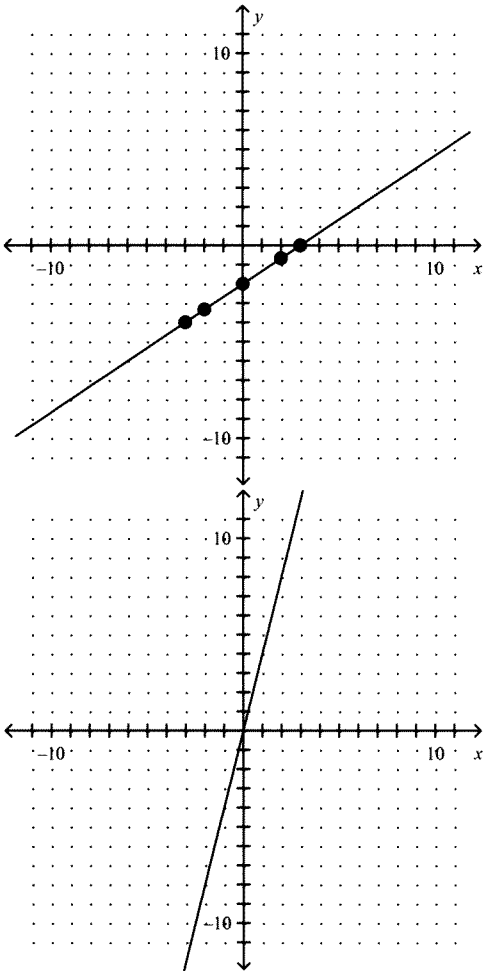
x	–3	–2	0	2	3
y	$-3\frac{5}{8}$	$-2\frac{3}{4}$	–1	$\frac{3}{4}$	$1\frac{5}{8}$



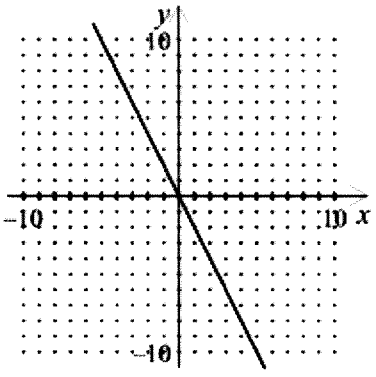
156.

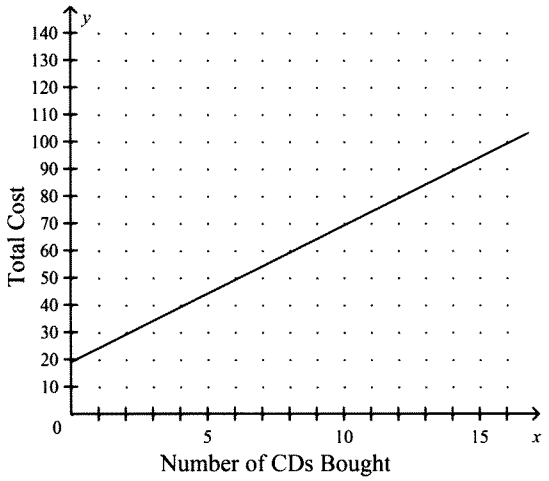
x	-3	-2	0	2	3
y	-4	$-3\frac{1}{3}$	-2	$-\frac{2}{3}$	0

157.



158.



159. 

160. The domain is 2, 5, 8, 11. The range is 12, 9, 6, 3.

161. Domain: 1, 2, 3, 4, 5
Range: 3, 6, 9, 12, 15

162. Domain: –2, 3, 10, 12 Range: 4, 8, 10, 13

163. The table can be written as $\{(-8, 4), (-5, -4), (0, 3), (9, -8)\}$. The domain is $\{-8, -5, 0, 9\}$. The range is $\{4, -4, 3, -8\}$.

164. A

165. A

166. B

167. D

168. C

169. C

170. C

171. C

172. D

173. B

174. A

175. B

176. D

177. C

178. C

179. C

180. C

181. B

182. A

183. C

184. D

185. A

186. D

187. C

188. C

189. B
190. A