7th Grade Pre-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 **7th grade Pre-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:** _____

7th Grade Pre-Algebra Summer Packet

Evaluate the expression when $x = 4$ and $y = 20$.

1. $y - x$

2. $x + y$

3. xy

4. $\frac{y}{x}$

Write a variable expression to represent the phrase.

5. The number of minutes in h hours.

6. The number of kilometers in m meters

Evaluate the expression when $n = 2$ and when $n = 5$.

7. n^4

8. n^6

Evaluate the expression.

9. $100 - 5^2 + 18$

10. $4[10 - (1 + 7)]$

11. $26 - (6 - 3)^2$

12. $\frac{2(2 + 4)^2}{9}$

13. $1 + (-5) + 9$

14. $-15 + (-8) + (-4)$

15. $7 - (-8) - 4$

16. $-10 + 1 - 15$

17. $(-4)(-8)(2)$

18. $-1(6)(4)$

19. $-45 \div 5 \div 3$

20. $16 \div (-2) \div (-4)$

21. $4.36 + 9.21 + 1.07$

22. $18 + 22 + 13 + 34$

23. $3(-2)(15)(12)$

Evaluate the expression when $r = 8$ and $t = 15$.

24. $r^2 + t$

25. $3(t - r)^2$

26. $\dfrac{r^2 - 4}{t + 5}$

27. $\dfrac{5r-2t}{r+2}$

Evaluate the expression when $a = -12$.

28. $|a|-5$

29. $16-|a|$

30. $-a+9$

31. $10|a|$

Evaluate the expression when $m = 7$ and $n = -8$.

32. $m+n$

33. $m-n$

34. $n-m$

35. $n-n$

36. mn

37. $-m \div (-m)$

Find the sum.

38. $-2 + (-12)$

39. $-4 + 4 + (-6)$

40. $9 + (-12)$

Evaluate the expression when $a = -6$, $b = -13$ and $c = 4$.

41. $a + 15$

42. $-13 + c + b$

43. $c + b$

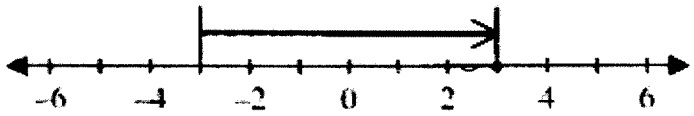
44. $a + (-5) + b$

____ 45. Sarah owns a small business. There was a profit of $12 on Monday and a loss of $11 on Tuesday. On Wednesday, there was a profit of $8 and on Thursday, there was a loss of $6. Find the total profit or loss.

a. $2 profit
b. $37 profit
c. $13 profit
d. $3 profit

Write the addition expression modeled on the number line. Then find the sum.

46.



47. An elevator started on the 11th floor. It went up 3 floors, down 2 floors, down 9 floors, and up 3 floors. On what floor did the elevator finally stop?

48. The Colts played football against the Sharks. The Colts had a gain of 14 yards on their first play and a loss of 17 yards on their second play. On the third play there was a loss of 15 yards. Find the total gain or loss for the 3 plays.

49. On a number line, what is the distance between 12 and –8?

Find the difference.

50. 18 – 21

51. $-5-4$

52. $-23-14$

53. $-12-(-9)$

Find the change in temperature.

54. From $-13°C$ to $15°C$.

55. From $-1°F$ to $-20°F$.

Evaluate the expression when $x=-4,\ y=10,$ and $z=-9$.

56. $x-y-z$

57. $-5-x-z$

Evaluate the expression for the given values of the variables.

58. $-g-b$, when $g=-49$ and $b=-41$

Find the missing number.

____ 59. $-\frac{4}{5} + -1.7 = ?$

a. –5.12 b. –2.5 c. –0.9 d. $-\frac{25}{20}$

60. $-4.5 - \frac{9}{2} = ?$

61. $-3.4 - ? = -5.6$

62. $? \div -77.8 = 1$

63. $? \times -10 = 90$

64. $? \times -7.6 = 67.64$

____ 65. $-23 \div 0.5 =$_____

a. –11.5 b. –46 c. 11.5 d. 46

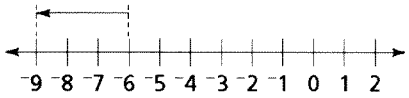
____ 66. $-1\frac{2}{4} \cdot 3\frac{3}{12}$

a. 4 b. 8 c. –3 d. –6

____ 67. 2.61×-3.4

a. –0.887 b. –9.761 c. 6.01 d. –8.874

68. Write the addition sentence illustrated by each figure.



69. Show the addition on a number line, and give the sum.

$^{+}8 + ^{-}9 + ^{-}2$

Find each value.

70. $\frac{-24}{-6}$

71. $-27 \div 9$

72. Find each quotient.

a. $\frac{-36}{-12}$

b. $\frac{1}{3} \div \frac{-5}{7}$

c. $-3.6 \div 1.8$

73. Jamie dropped a quarter from a height of 6 feet above the ground into a wishing well whose bottom was 5 feet below ground level. Write an expression representing the change in elevation of the quarter. How far did the quarter travel?

Find the change in elevation.

74. From −500 feet to −145 feet

75. From 60 meters to −10 meters

76. Your banking activity for the month of May is shown below. The positive dollar amounts represent deposits into your account and the negative dollar amounts represent withdrawals from your account. Your balance at the beginning of the month was $55. Find the ending balance.

Date	5/06	5/10	5/11	5/13	5/20	5/21	5/23	5/27
Amount	$20	−$12	−$5	$45	$16	−$22	−$53	$19

77. Find the mean of the integers.

44, 63, −17, 28, −30, −24, 19, 51, −8

A student measured the temperature in degrees Celsius for several winter days and recorded the data in a list. Find the mean of the temperatures listed.

78. −10°, 13°, −19°, 1°, 10°, −17°, −3°, −15°

79. A gymnast received the following scores in a competition: 8.8, 9.5, 8.9, and 9.2. What was the gymnast's mean score?

Find the product.

80. $-4(13)$

81. $-4(-52)$

82. $-8(4)(1)$

Find the quotient.

83. $21 \div (-3)$

84. $-272 \div (-8)$

Perform the indicated operation.

85. $145.68 + (-16.9)$

86. $3.06 \div 0.006$

87. $-6(2.72)$

Evaluate the expression.

88. xy, when $x = 2$ and $y = -6$

89. $\frac{x}{y}$, when $x = 38$ and $y = -2$

Evaluate the expression when $a = 6$, $b = -9$, and $c = 16$.

90. $4a + 5b + 8c$

91. $-8cba$

92. a^2bc

Use the distributive property to evaluate the expression.

93. $9(3 + 4 + 7)$

94. $-5(12 + 2 - 8)$

95. $(5 - 6 - 16)3$

Use the distributive property to write an equivalent variable expression.

96. $-2(5+x-1)$

97. $11(4-3-2t)$

98. $(-1+7+9)3x$

Tell whether the given value of the variable is a solution of the equation.

99. $16-x=2;\ x=-14$

100. $5n=-40;\ n=-8$

101. $c+25=20;\ c=-5$

102. $\frac{w}{10}+7w=71;\ w=-10$

Solve the equation. Check your solution.

103. $z-5=10$

104. $-7+z=-12$

105. $13=5+k$

106. $e-8=29$

107. $16+k=4$

108. $n-43=80$

109. $164=x-59$

____ 110. During the 1998 Winter Olympic Games, 205 total medals were given to athletes. Of the medals given, 136 were silver and bronze. Which equation shows the number of gold medals given to athletes during the 1998 Winter Olympic Games?

a. $x+205=136$
b. $136+x=205$
c. none of these
d. $136-x=205$

Solve the equation.

111. $d-10=27$

112. A moving van weighing 13,500 pounds was loaded with furniture. The van stopped at a weigh station and the combined weight of the van and furniture was 14,955 pounds. How much did the furniture weigh?

Solve the equation.

113. $24 = 3y$

114. $14x = -728$

115. $\frac{u}{6} = 6$

116. $9x = 270$

117. $\frac{x}{15} = 11$

118. $5x = -15$

119. $\frac{a}{27} = 17$

Solve the equation.

120. $3a = 1.5$

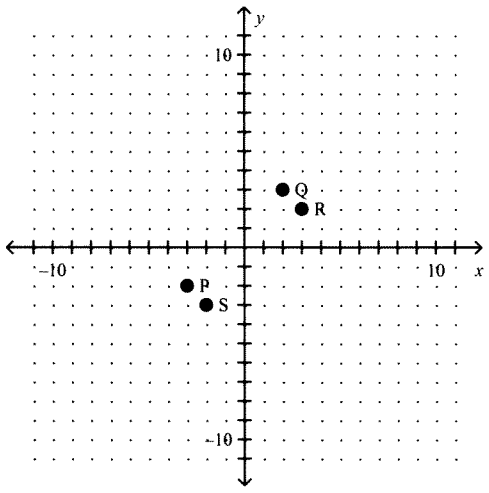
121. $\frac{h}{5} = 9.8$

122. $-0.59 = x + 11.39$

123. $n + 1.21 = 16.34$

124. Each story of a building is 17.5 feet tall. If the height of the building is 332.5 feet, how many stories does the building have?

____ 125. Name the point at (3,2).

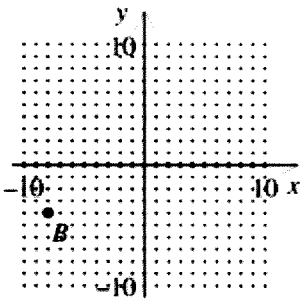


a. *Q*
b. *R*
c. *P*
d. *S*

Plot the point and describe its location.

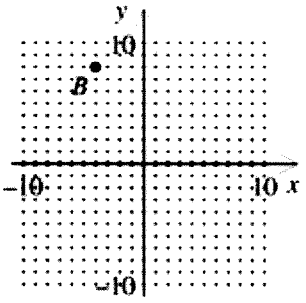
____ 126. Plot the point $B(8,-4)$ and describe its location.

a.



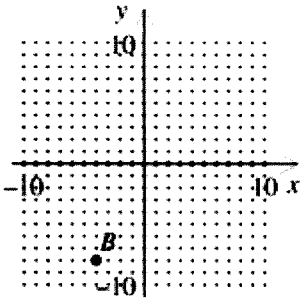
Begin at the origin. Move 8 units to the left, then 4 units down.
Point B is in Quadrant II.

b.



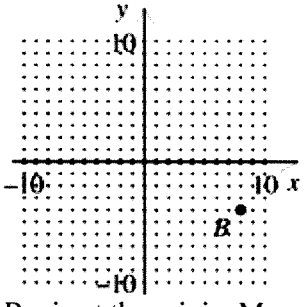
Begin at the origin. Move 4 units to the left, then 8 units up.
Point B is in Quadrant IV.

c.



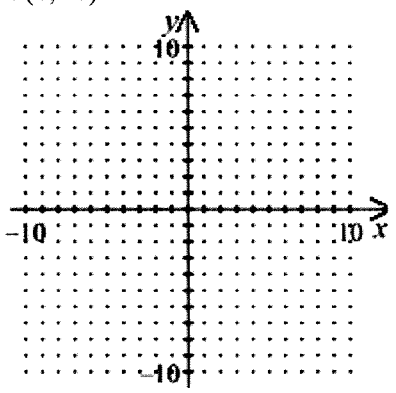
Begin at the origin. Move 4 units to the left, then 8 units down.
Point B is in Quadrant III.

d.

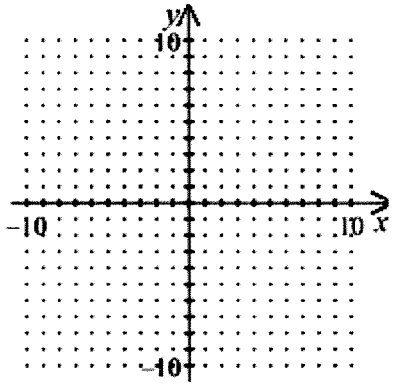


Begin at the origin. Move 8 units to the right, then 4 units down.
Point B is in Quadrant IV.

127. $C(0,-7)$



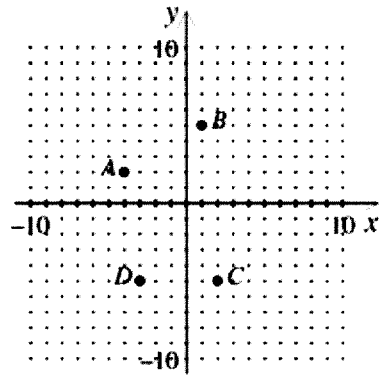
128. $E(4,0)$



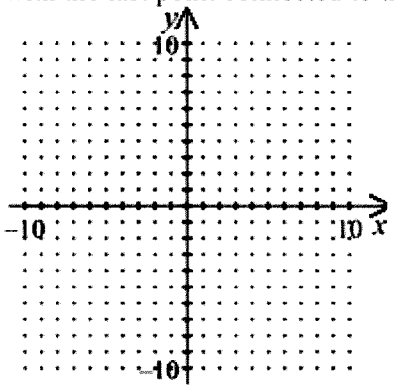
____ 129. The point $(a,-b)$ is located in Quadrant IV of a coordinate plane. Identify the quadrant of the point with the coordinates $(-a,-b)$.

a. The point is located in Quadrant II.
b. The point is located in Quadrant I.
c. The point is located in Quadrant III.
d. The point is located in Quadrant IV.

130. Write the coordinates of the points A, B, C, and D.



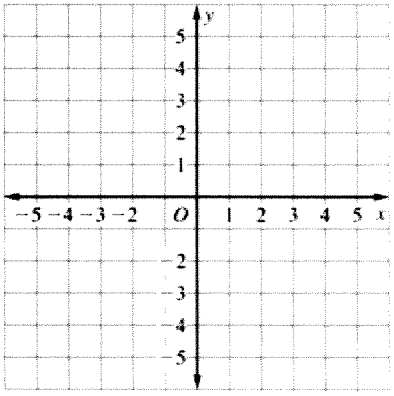
131. Plot the points (3,2), (5,2), (3,−1), and (3,−1) on a coordinate plane. If the points are connected in order, with the last point connected to the first, what figure will be formed? Explain.



132. Consider the point $P(5,-4)$.
a. Plot the point in a coordinate plane. Describe the location of point P.
b. Describe possible y-values that would let the point $(-4, 5y)$ be in Quadrant III.

133. Plot the points listed below in the given coordinate plane. Describe any pattern you see in the graph.

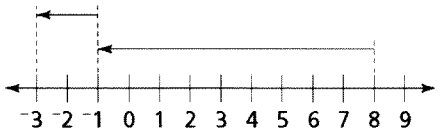
$(-2,4)$, $(-1,3)$, $(0,2)$, $(1,1)$, $(2,0)$, $(3,-1)$



7th Grade Pre-Algebra Summer Packet - 2019
Answer Section

1. 16
2. 24
3. 80
4. 5
5. $60h$
6. $\frac{m}{1000}$
7. 16; 625
8. 64; 15,625
9. 93
10. 8
11. 17
12. 8
13. 5
14. –27
15. 11
16. –24
17. 64
18. –24
19. –3
20. 2
21. 14.64
22. 87
23. –1080
24. 79
25. 147
26. 3
27. 1
28. 7
29. 4
30. 21
31. 120
32. –1
33. 15
34. –15
35. 0
36. –56
37. 1
38. –14
39. –6
40. –3
41. 9

42. –22
43. –9
44. –24
45. D
46. $-3 + 6; -3 + 6 = 3$
47. 6th floor
48. 18-yard loss
49. 20
50. –3
51. –9
52. –37
53. –3
54. 28°C
55. –19°F
56. –5
57. 8
58. 90
59. B
60. –9
61. 2.2
62. –77.8
63. –9
64. –8.9
65. B
66. D
67. D
68. $-6 + -3 = -9$
69. –3



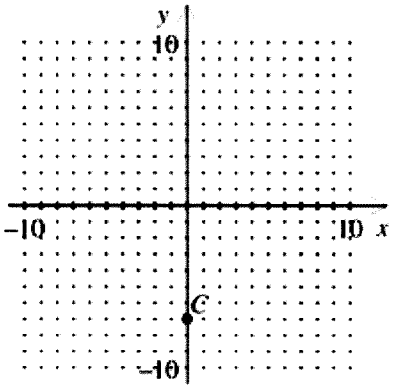
70. 4
71. -3
72. **a.** 3

    b. $\frac{-7}{15}$

    c. –2
73. $6 - (-5)$; 11 feet
74. 355 ft
75. –70m
76. $63
77. 14

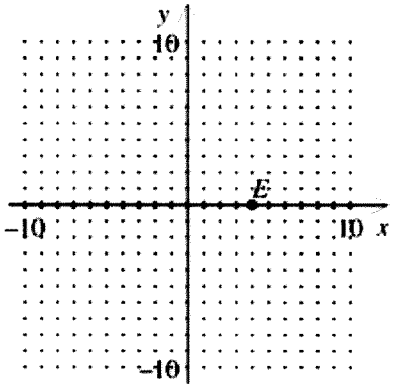
78. $-5°$
79. 9.1
80. -52
81. 208
82. -32
83. -7
84. 34
85. 128.78
86. 510
87. -16.32
88. -12
89. -19
90. 107
91. 6912
92. -5184
93. 126
94. -30
95. -51
96. $-2x - 8$
97. $11 - 22t$
98. $45x$
99. not a solution
100. solution
101. solution
102. not a solution
103. 15
104. -5
105. 8
106. 37
107. -12
108. 123
109. 223
110. B
111. 37
112. 1455 pounds
113. 8
114. -52
115. 36
116. 30
117. 165
118. -3
119. 459
120. 0.5
121. 49
122. -11.98

123. 15.13
124. 19
125. B
126. D



127.

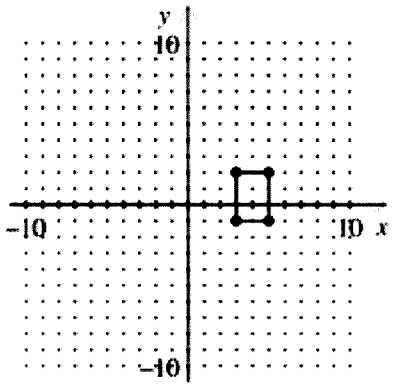
Begin at the origin.
Move 7 units down.
Point C is on the y-axis.



128.

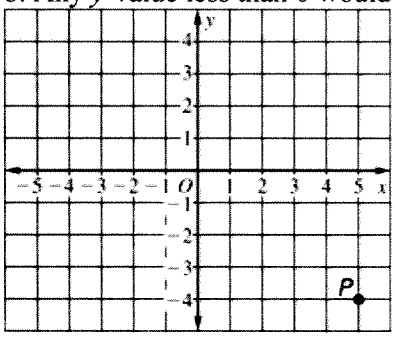
Begin at the origin.
Move 4 units to the right.
Point E is on the x-axis.

129. C
130. $(-4, 2), (1, 5), (2, -5), (-3, -5)$

131. 

A rectangle is formed. The horizontal side lengths are each 2 units long, but the vertical side lengths are each 3 units long.

132. a. See graph below. P is in Quadrant IV.
b. Any y-value less than 0 would let point $(-4, 5y)$ be in Quadrant III.



133. The points fall from left to right.