Summer Review Assignments for Beginning Algebra (8th Grade)

Dear Parents and Students:

Your teachers for next year are already making plans for our new school year, and we are all looking forward to seeing you in August.

These summer assignments are designed to be a review of the math skills expected of an eighth grader at Lanier Christian Academy entering the Beginning Algebra course. These math skills are very important to the success of your child this year. The summer review work will prepare students for the assessment, and allow teachers more instructional time and the ability to progress into new material sooner.

- **Print the assignment.**
- **Summer work is to be turned in on the first Monday of the first school week.**
- **Students must show their work and put a box around the answer.**
- **Parents, check the answers and mark incorrect answers with a colored pen, pencil, or marker. The answers are included.** Write the grade in the UPPER RIGHT corner (number correct divided by number of assigned problems times 100). **Also, please sign your name to indicate that the work was checked by you.** If your student misses 20% or more of the problems, your student needs to correct the missed problems to the right of the original work or on a separate piece of notebook paper. Staple all pages together. **Your student should make corrections until the grade is AT LEAST an 80.**

  ***Points will be deducted if students do not show all their work & corrections, if parents do not grade and sign the work, and if the work turned in is below 80% correct.**

Thanks for working on this review and have a wonderful summer!

Beginning Algebra Name_____

Beginning Algebra (8th gr) Summer Work

Date_____

Simplify each. Write your answer as a mixed number when possible.

1) $\frac{9}{18}$

2) $\frac{24}{60}$

3) $\frac{45}{72}$

4) $\frac{36}{90}$

5) $\frac{28}{16}$

6) $\frac{84}{60}$

7) $\frac{36}{30}$

8) $\frac{160}{100}$

Evaluate each expression.

9) $7 - 3$

10) $(-2) - 5$

11) $(-8) - (-3)$

12) $3 + (-1)$

13) $3 - (-2.6)$

14) $(-3.5) + (-5.8)$

15) $2\frac{3}{5} + \frac{1}{2}$

16) $2\frac{5}{8} + 1\frac{4}{5}$

17) $\frac{7}{5} + \frac{1}{6}$

18) $\frac{5}{3} + 1\frac{5}{8}$

19) $6 - (-3.2)$

20) $2.9 + 4.86$

21) $3.1 - 1.6$

22) $2.4 + 1.5$

Find each product.

23) $-2\frac{1}{2} \times -10$

24) $5\frac{1}{4} \times -\frac{9}{5}$

25) 1.7×-0.1

26) -4.6×-1.5

Find each quotient.

27) $-4 \div 1.6$

28) $-3.8 \div 0.8$

29) $1\frac{1}{4} \div \frac{-5}{9}$

30) $5\frac{1}{4} \div \frac{-7}{4}$

Write each as an algebraic expression.

31) the quotient of 18 and 3

32) 10 decreased by m

33) the sum of 7 and 11

34) 4 cubed

Evaluate each expression.

35) $(4 + 1) \times 2$

36) $(13 - 3) \div 2$

37) $(5 - 3) \times 3$

38) $3(6 + 2)$

39) $18 \div (6 - (4 - 1))$

40) $6 - 3 - (4 - 3)$

41) $(3 + 3)(4 + 2)$

42) $(2 \times 2) \div (4 - 2)$

43) $4.1 + 3.2 + 3$

44) $3.8 \times 4.5 + 5.2$

45) $2.33 - 1.6 + 1.6$

46) $(3.2 - 2.6) \times 2.3$

47) $2\frac{3}{4} - \left(2\frac{1}{5} - 2\right)$

48) $\left(2\frac{1}{2}\right)^2 - 1\frac{1}{2}$

49) $2\frac{2}{5} \times 1\frac{3}{4} - 1\frac{3}{5}$

50) $\left(3\frac{1}{3} - 2\right) \div 2$

Evaluate each using the values given.

51) $(x - y)^2$; use $x = 6$, and $y = 3$

52) $xy + x$; use $x = 3$, and $y = 4$

53) $x - (1 - y)$; use $x = 2$, and $y = 1$

54) $mn + m$; use $m = 2$, and $n = 2$

Simplify each expression.

55) $x + 9 - 2 - 2x$

56) $-7 - x + x - 5$

57) $1 + 7x + x + 8$

58) $-9x - 3x$

59) $-8(1 + 4r)$

60) $-6(b + 1)$

61) $-10(7b + 5)$

62) $-4(8 + 7m)$

63) $-7b + 3(-9b + 2)$

64) $7(1 + 8x) + 8$

65) $-9 + 8(8 - 6r)$

66) $4k + 10(1 + 5k)$

67) $8(10m + 4) - 9m$

68) $7(b + 6) + 8b$

Solve each equation.

69) $-13 = v + (-6)$

70) $b - 10 = 0$

71) $5 + v = 22$

72) $-25 = x + (-20)$

73) $-27 = -9n$

74) $\frac{a}{14} = 11$

75) $\frac{x}{13} = -19$

76) $\frac{n}{8} = 8$

77) Cody ran 27.7 miles more than Perry last week. Cody ran 39.6 miles. How many miles did Perry run?

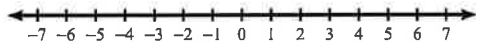
78) Nicole was given $18.99 for babysitting. She now has $28.33. How much money did she start with?

79) Lisa paid $6.95 for a fruit drink. She now has $9.77. With how much money did she start?

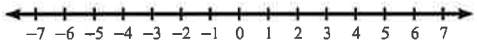
80) If the weight of a package is multiplied by $\frac{7}{8}$ the result is 14 pounds. Find the weight of the package.

Draw a graph for each inequality.

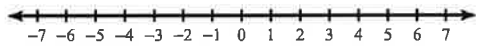
81) $r < -6$



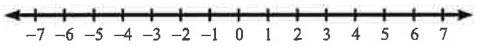
82) $x < -1$



83) $k \leq 0$



84) $v < -2$



Write each number in scientific notation.

85) 0.0301

86) 70000

87) 930000

88) 703

Write each number in standard notation.

89) 8.81×10^{-3}

90) 6.27×10^{3}

91) 8.5×10^{-5}

92) 3.4×10^{5}

Simplify. Your answer should contain only positive exponents.

93) $2^3 \cdot 2^4$

94) $(4^3 \cdot 4^0)^4$

95) $2^4 \cdot (2^3)^4$

96) $3^4 \cdot 3^3$

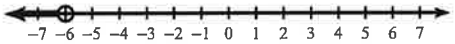
97) $2n^3 \cdot (4n^2)^4$

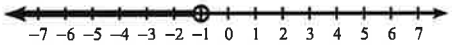
98) $x^4 \cdot (x^4)^3$

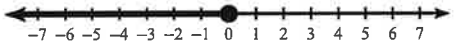
99) $(4x)^2 \cdot (3x^4)^3$

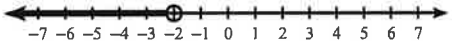
100) $(b^4)^3 \cdot (3b^3)^2$

Answers to Beginning Algebra (8th gr) Summer Work

1) $\frac{1}{2}$
2) $\frac{2}{5}$
3) $\frac{5}{8}$
4) $\frac{2}{5}$
5) $1\frac{3}{4}$
6) $1\frac{2}{5}$
7) $1\frac{1}{5}$
8) $1\frac{3}{5}$
9) 4
10) −7
11) −5
12) 2
13) 5.6
14) −9.3
15) $3\frac{1}{10}$
16) $4\frac{17}{40}$
17) $1\frac{17}{30}$
18) $3\frac{7}{24}$
19) 9.2
20) 7.76
21) 1.5
22) 3.9
23) 25
24) $-9\frac{9}{20}$
25) −0.17
26) 6.9
27) −2.5
28) −4.75
29) $-2\frac{1}{4}$
30) −3
31) $\frac{18}{3}$
32) $10 - m$
33) $7 + 11$
34) 4^3
35) 10
36) 5
37) 6
38) 24
39) 6
40) 2
41) 36
42) 2
43) 10.3
44) 22.3
45) 2.33
46) 1.38
47) $2\frac{11}{20}$
48) $4\frac{3}{4}$
49) $2\frac{3}{5}$
50) $\frac{2}{3}$
51) 9
52) 15
53) 2
54) 6
55) $-x + 7$
56) −12
57) $9 + 8x$
58) $-12x$
59) $-8 - 32r$
60) $-6b - 6$
61) $-70b - 50$
62) $-32 - 28m$
63) $-34b + 6$
64) $15 + 56x$
65) $55 - 48r$
66) $54k + 10$
67) $71m + 32$
68) $15b + 42$
69) {−7}
70) {10}
71) {17}
72) {−5}
73) {3}
74) {154}
75) {−247}
76) {64}
77) 11.9
78) $9.34
79) $16.72
80) 16
81) 

82) 

83) 

84) 

85) 3.01×10^{-2}
86) 7×10^4
87) 9.3×10^5
88) 7.03×10^2
89) 0.00881
90) 6270
91) 0.000085
92) 340000
93) 2^7
94) 4^{12}
95) 2^{16}
96) 3^7
97) $512n^{11}$
98) x^{16}
99) $432x^{14}$
100) $9b^{18}$