# SUMMER MATHEMATICS PACKET
# FOR STUDENTS ENTERING
# ALGEBRA 1 and
# INTEGRATED Algebra/Geometry

**You are required to complete the summer packet. Where ever possible try to answer questions <u>without</u> the use of a calculator. The packet must be submitted to your math instructor on the first full day of math classes. It will count toward your first quarter grade. It is designed as review of the items you should know. Your instructor will use the packet as either a quiz or test grade for the first quarter. This assessment is your opportunity to get the new school year off to a great start.**

**PART ONE ARITHMETIC NO CALCULATORS**
**SOLVE, COMPUTE, OR COMPLETE**

1. 67 + 58 1. _____

2. 7009 + 1598 2. _____

3. 82 – 45 3. _____

4. 4035 – 1967 4. _____

5. 14 + 35 + 18 + 59 + 32 5. _____

6. 27 + 37 – 38 – 57 + 74 6. _____

7. 64 x 37 7. _____

8. 305 x 578 8. _____

9. 2006 ÷ 6 9. _____

10. 7511 ÷ 37 10. _____

11. 6 + 5 x 2 11. _____

12. 35 – 14 ÷ 2 12. _____

13. 56 ÷ 4 x 2 + 9 – 4 13. _____

14. (23 – 7) x 21 ÷ ( 12 – 5) 14. _____

15. 28 ÷ 7 x 2 + 4 – 3 15. _____

**PART TWO FRACTIONS**

16. Write as a mixed number $\frac{31}{4}$ 16. _____

17. Write as an improper fraction $5\frac{3}{4}$ 17. _____

18. Find an equivalent fraction $\frac{5}{8} = \frac{\quad}{32}$ 18. _____

19. Reduce to lowest terms $\frac{27}{42}$ 19. _____

20. Which is larger 1 7/8 or 5/3? 20. _____

21. 7/8 x 11/16 21. _____

22. 4 ½ x 2/3 22. _____

23. 3/5 of 1 ½ 23. _____

24. 3/4 ÷ ½ 24. _____

25. 2 7/8 ÷ 1 ¼ 25. _____

26. 4 ÷ ½ 26. _____

27. 7/16 + 3/16 27. _____

28. 1 3/16 + ¾ 28. _____

29. ¾ - 1/5 29. _____

30. 4 – 15/16 30. _____

**PART THREE DECIMALS**

31. 5.83 + 0.096 31. _____

32. 3.78 – 0.0989 32. _____

33. 27 – 0.0356 33. _____

34. 7.25 × 0.031 35. _____

35. 104.2 ÷ 0.032 35. _____

36. 0.09 ÷ 0.0004 36. _____

37. 20.4 ÷ 6.7 (round to three decimal places) 37. _____

38. Find the average of 4.2, 4.8, 5.7, 2.5, 3.6, 5.0 38. _____

39. Write as 3/16 as a decimal. 39. _____

40. Write as a fraction in lowest terms 27/36 40. _____

41. 1 2/3 × 2.5 41. _____

42. 4.1 + 2 ¼ 42. _____

**PART FOUR RATIO PROPORTION PERCENT**

43. Simplify the ratio.
A class with 12 girls and 14 boys. 43. _____

44. Solve for x: $\frac{20}{x} = \frac{36}{81}$ 44. _____

45. Solve for y: $\frac{4.4}{2.8} = \frac{y}{15}$ 45. _____

46. Write ¼ as a percent. 46. _____

47. Write 0.46 as a percent. 47. _____

48. Write 5 as a percent. 48. _____

49. Write 0.075 as a percent. 49. _____

50. Write 35% as a decimal. 50. _____

51. Write 2.5% as a decimal. 51. _____

52. Write 112% as a decimal. 52. _____

53. Find 20% of 110. 53. _____

54. Find 120% of 45. 54. _____

55. 12 is what percent of 30? 55. _____

56. What percent of 48 is 36? 56. _____

57. 24 is 25% of what number? 57. _____

58. 40% of 75 is what number? 58. _____

**PART FIVE SIGNED NUMBERS**

59. Represent a loss of $200 as a signed number. 59. _____

60. Which is the larger value –17 or –13? 60. _____

61. (-5) + (-14) 61. _____

62. (-17) + 27 62. _____

63. 36 + (- 19) 63. _____

64. 5 – 9 64. _____

65. 27 – ( -36) 65. _____

66. (-23) – (-14) 66. _____

67. (-15) + 3 – (-12) + 17 – 36 67. _____

68. 12 x (-6) 68. _____

69. (-7) x ( -15) 69. _____

70. (-5) x (-8) x (-4) 70. _____

71. ( -450) ÷ (-15) 71. _____

72. 738 ÷ (-18) 72. _____

73. Compute 56/2 + 7 x 3 –10 73. _____

74. Compute (-6)(-4)/ 12 74. _____

**PART SIX MEASUREMENT**

75. Find the perimeter and the area of a square that measures 13 inches on each side.

75._____

_____

76. Find the circumference and area of a circle that has a diameter measuring 7 m. (Use $\pi = 3.14$) $C=2\pi r$ and $A=\pi r^2$

76. _____

_____

77. 4.5 hours x 50 mph 77. _____

78. 1 hr 40 min + 3 hr 25 min 78. _____

79. 28 quarts = _____gallons 79. _____

80. 75 inches = _____feet 80. _____

81. 36 ft = _____ yds

81. _____

82. 96 oz = _____qts

82. _____

83. 10,000 lbs = _____ T

83. _____

84. 15,840 ft = _____ miles

84. _____

85. If a rectangle has a perimeter of 40 inches and a width of 8 inches, what is the measure of the length?

85. _____

86. If the length of a rectangle is 13 yards and it has an area of 91 square yards, what is the measure of the width?

86. _____

87. What is the volume of box that is 11cm by 12cm by 6cm?

87. _____

## PART SEVEN MISCELLANEOUS

88. A normal six-sided number cube is tossed. What is the probability that a number less than three will be on top?

88. _____

89. Two coins are tossed. What is the probability that both coins will land heads up?

89. _____

Solve for the missing term

90. $m + 8 = 52$

90. _____

91. $n - 8 = 35$

91. _____

92. $3y = 42$

92. _____

93. $r/4 = 48$

93. _____

94. $3z - 8 = 16$

94. _____

95. $a/4 + 12 = 48$

95. _____