

Summer Packet for Students Entering Algebra I

Do NOT use a calculator. Work neatly and show all work. You may use your own paper if you need more space. If you use your own paper, number each problem and highlight your answer.

DECIMALS; Add, subtract, multiply or divide as indicated.

1. $.35 + .0976 + 3.6$	2. $.007 + 38 + 2.19$	3. $5.34 - 3.83$	4. $8.36 - 7.5$
5. $7.4 - 3.68$	6. $7 - 3.46$	7. $.017 \times .8$	8. $.328 \times .53$
9. $62 \times .000005$	10. $.00036 \times .13$	11. $.3621 \div .03$	12. $689.6 \div .4$
13. $148.4 \div .28$	14. $1.353 \div .52$	15. $10.73 \div 4.3$ Round to nearest tenth	16. $38 \div 6$ Round to the nearest tenth

FRACTIONS: Add, subtract, multiply, or divide as indicated. Write answer as a mixed number if necessary. Reduce all fractions to lowest terms.

17. $\frac{3}{8} + \frac{5}{6}$	18. $2\frac{2}{5} + 3\frac{4}{6}$	19. $\frac{7}{18} + \frac{2}{3} + \frac{1}{6}$	20. $\frac{9}{14} + \frac{15}{28}$
21. $8\frac{3}{8} - 6\frac{1}{6}$	22. $14\frac{2}{3} - 9\frac{4}{5}$	23. $78\frac{2}{5} - 14\frac{7}{10}$	24. $\frac{4}{7} - \frac{2}{5}$
25. $\frac{5}{12} \times \frac{1}{3} \times \frac{8}{15}$	26. $7\frac{1}{3} \times 2\frac{1}{5}$	27. $5\frac{2}{3} \times 3\frac{1}{4}$	28. $7\frac{2}{5} \times 3\frac{4}{7}$
29. $2\frac{1}{8} \div 3\frac{3}{4}$	30. $\frac{3}{10} \div \frac{2}{9}$	31. $5\frac{2}{3} \div 3\frac{1}{4}$	32. $3\frac{1}{5}$ $2\frac{1}{2}$

Fill in the chart.
Convert fractions to decimals and/or percents.

Fraction	Decimal	Percent
EXAMPLE: $\frac{1}{2}$	50	50%
$\frac{4}{5}$	33.	34.
35.	.75	36.
37.	38.	$33\frac{1}{3}\%$
39.	.375	40.
41.	42.	112 %

43. 12 is what percent of 64?

44. 17 is what fraction of 51?

45. 4/9 of 81 is what?

**Orders of Operation. Simplify using *Please Excuse My Dear Aunt Sisie*.
 (Parentheses, Exponents, Multiply, Divide, Add, Subtract)**

46. $4 \times 3 + 2 + (-3)$	47. $6 - 8 + 2 \times 5$	48. $-2(-2) - 2 + 2$	49. $-6(+2) - 3(2)$
50. $4(3+2) - 5(6-3)$	51. $\frac{-3(4-2) - (-5)}{4-3(3)}$	52. $5 + 6 \times 2$	53. $12 + 8 \div 2 - 5$

Combine Like Terms:

54. $3x + 8 - 2x + 4$	55. $3n + 6 + 5n - n$	56. $2ab - 3ab + 4a - 5b$	57. $5x + 3x - 3x - 5y$
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**Equations. Solve the following equations. Show the steps.
 Do not do work in your head.**

Example: $2x + 7 = 15$ $2x = 15 - 7$ $2x = 8$ $x = 4$	58. $3x = 48 - x$	59. $\frac{x}{3} = 8$	60. $8y - 3 = 2y + 9$
61. $8 = n + 3n - 24$	62. $\frac{1}{2}x - 7 = 8$	63. $9z = 40$	64. $7 = \frac{a}{2}$
65. $8x - 9x = -4$	66. $2\frac{3}{4}x = 3/7$	67. $14x + 5 = -3x - 4$	68. $3(2x - 4) = 18$
69. $-3(a - 4) = 3 - 6$	70. $3(2x + 4) = 2(x - 5)$	71. $\frac{5}{6}x = 1\frac{1}{7} + \frac{3}{8}$	72. $3y = 2\frac{3}{11}$

Change the sentences to equations and solve.

73. Three greater than a number is 46.

74. A number decreased by 8 is three times the number plus two.

75. Twice a number, increased by four is one hundred.