

Name: _____ Date: _____



Southington Public Schools

K-12 Curriculum Coordinators

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Dear Middle School Math Students,

Attached you will find a comprehensive set of math problems which reflect the math skills you have worked on this year and should have mastered. It is the goal of the Math Department that you have a successful and enjoyable transition into your next grade level math course. We need you to practice these math skills and we encourage you to keep up these skills in several ways: first through solving the problems in this packet and second by visiting the websites that are listed after each section of the packet.

If you lose the packet you can find a copy at your MS website homepage or find the same packets at:

<http://www.southingtonschools.org>

ABOUT US

CURRICULUM and INSTRUCTION

K-8 MATH

GRADES 6-8

Summer Packets

Also there will be a limited number of copies in the Main office of each school.

Upon returning to school, your teacher will check your packets for completion and count it as your first homework grade. In order to receive credit you must attempt each problem and show any work needed to complete it. **NO CALCULATOR** may be used.

If you have a question or concern about a problem note that on your packet and it will be reviewed during the first few days of school. After you review this packet in class there will be a short assessment based on these skills. As an additional means of support, I will be happy to help any student who emails a concern they are having. My email address is:

rburdick@southingtonschools.org

Please do your **BEST** work!

Sincerely,

Rosemary Burdick
Middle School Math Specialist

Name: _____ Date: _____

Directions: Show your work. No Calculator!!!!

Order of Operations:

Simplify the following:

1. $8(16 + 14) =$

2. $3(9 - 3 \bullet 2) =$

3. $\frac{14 + 4}{11 - 2} =$

4. $9(12 - 5) - 11(21 - 8 \bullet 2) =$

5. $12[3(17 - 6) - 7 \bullet 4] =$

Challenge: $16 \div 4 \bullet 2 =$

Evaluate each expression if $a = 10$, $b = 8$, $c = 6$ and $d = 12$

6. $14 - a + b =$

7. $2b - d =$

8. $d - c =$

9. $c + (d - b) =$

10. $5a + 4b =$

11. $\frac{a}{b + 2} =$

Translate each verbal expression into an algebraic expression:

12. Seven more than some number, n .

13. The product of a number p and ten.

14. Jodi's score plus ten

15. Four more than twice the number, t .

16. The quotient of some number s and 4.

Properties

Name the property shown below:

17. $22 + 0 = 22$

18. $9 + 3 = 3 + 9$

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19. $8 + (2 + 4) = (8 + 2) + 4$

20. $4(6 \bullet 3) = (4 \bullet 6) \bullet 3$

21. $5(b + 3) = 5b + 15$

Solve each equation:

22. $72 = 8n$

23. $6n = 84$

24. $19.9 - x = 17.6$

25. $9 = \frac{w}{12}$

26. $19 - g = 7$

27. $\frac{y}{4.5} = 6.3$

Translate and solve:

28. The product of a number n and seven is 84. Find the number.

29. Seven more than a number t is 15.

30. Nine less than a number r is 40.

Graphing:

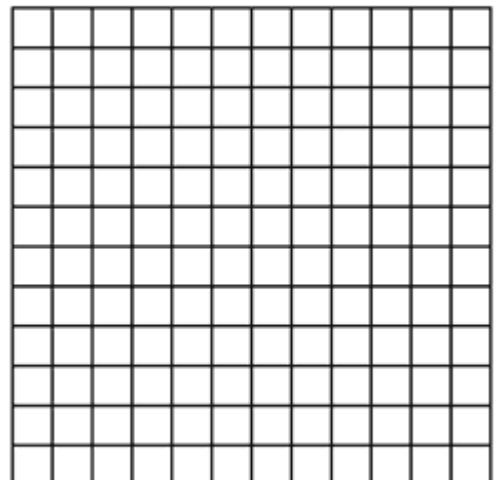
Please graph the following points:

31. A (9,7)

32. B (3,1)

33. C (8,4)

34. D (2,7)



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Integers

35. Define Absolute Value: _____

Simplify each:

36. $|-31| =$

37. $|24| =$

38. $|6 - 2| =$

39. $|-8| + |-21| =$

40. $|17 - 29| =$

Comparing Integers. Using $<$, $>$ or $=$ compare the following integers.

41. $9 \bigcirc -9$

42. $-3 \bigcirc -3$

43. $6 \bigcirc 13$

44. $-12 \bigcirc -21$

45. $-2 \bigcirc 0$

Order these integers from least to greatest.

46. $\{ 8, 0, -3, 6, 5 \}$

47. $\{ -16, 3, -4, 2 \}$

48. $\{ -75, 21, 4, -31, -88 \}$

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Solve each of the following:

49. $-4 - 5 =$

50. $9 + 11 =$

51. $-12 + 4 =$

52. $-15 + 9 =$

53. $-33 - (-3) =$

54. $(-4)(2) =$

55. $(-11)(-15) =$

56. $88 \div -4 =$

57. $-14 \div -2 =$

Graphing:

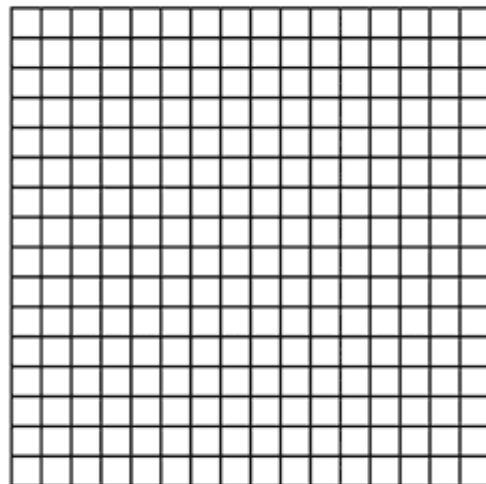
58. A $(-6, 8)$

59. B $(1, -2)$

60. C $(-3, -4)$

61. D $(-2, 5)$

62. E $(3, -5)$



Equations:

Please solve each of the following:

63. $m + 17 = 21$

64. $x - 13 = 40$

65. $a + 19 = 25$

66. $15b = 210$

67. $217 = 7k$

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68. $\frac{m}{15} = 8$

69. $18 = \frac{c}{32}$

Two-Step equations:

70. $3x - 8 = 13$

71. $2 + 5m = 22$

72. $9 - 4z = 41$

Rational Equations:

73. $v - 4.72 = 7.52$

74. $s + (-13.5) = -22.3$

Scientific Notation:

Write each number in scientific notation

75. 6,184,000

76. .00004637

Write each number in standard form:

77. 9.562×10^{-3}

78. 8.2×10^4

Solve: Anne buys a car for \$100 and sells it for \$110. She buys it back for \$120 and sells it again for \$130. How much money did she make or lose?

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Websites:

Basic Skills are very important as part of Algebra. It is strongly recommended that you look over the following websites to keep those skills fresh.

This site contains math video tutors:

<http://www.mathplayground.com/mathvideos.html>

This will keep your brain active – by making ONLY 24!

http://www.mathplayground.com/make_24.html

Fast pace Ordering Integers:

<http://www.mathplayground.com/numberballs.html>

A selection of games to play for basic skill review:

<http://www.mathplayground.com/mathtv.html>

A HARDER set of math instruction videos and practice:

http://www.mathplayground.com/SMP_Index.html

This is for fractions and Decimals:

Instruction and Review

<http://home.avvanta.com/~math/FDMENU.HTM>

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Algebra YR students:

As you use this site, I would ask you not to use a calculator. After you check your answers, please print out, if possible, the results. And if they are incorrect please calculate to find your mistake.

www.classzone.com

- 1) Select Middle School MATH
- 2) State: Connecticut
- 3) CLICK GO

Select the Pre-Algebra Book

Select the eworkbook and then do the following chapters:

Chapter 1: Variables – all 8 lessons

Chapter 2: Solving Equations – all 7 lessons

Chapter 5: Rational Numbers – all 7 lessons

Chapter 6: Ratio and Proportion – Lessons, 1, 2 and 3

Chapter 7: Percents – Lesson 4 and 6