

Algebra 1 Summer Review Packet 2004

DUE THE FIRST DAY OF SCHOOL

The problems in this packet are designed to help you review topics from previous mathematics courses that are important to your success in Algebra 1. Please try to do each problem and show the work that goes with that answer. Bring the packet with you to your Algebra 1 class on the first day of school. Additional copies of this review packet can also be printed from the Paint Branch High School website (in pdf) at: www.mcps.k12.md.us/schools/paintbranchhs/

All work should be completed and ready to turn in on the first day of school. This packet will count as part of your first quarter Algebra 1 grade.

Enjoy your summer. We are looking forward to meeting you and working with you in the fall.

Name _____

DIRECTIONS: Each of the following problems comes from Pre-Algebra and should help prepare you for Algebra I in the fall. Please show ALL work for each problem.

Use order of operations to determine each answer:

1) $4 \cdot 16 + 8 - 0 \div 5$ 1) _____

2) $8(3 + 4) - 2 \cdot 8 \div (5 - 3)$ 2) _____

3) $(8^2 + (13 - 4)^2) \div 5$ 3) _____

Insert parentheses to make the following equation true:

4) $8 + 12 \div 4 \cdot 5 = 1$

Determine the answer for each problem:

5) $94 - 87 =$ _____ 6) $-51 - 98 =$ _____ 7) $29 - 100 =$ _____

8) $-777 - (-801) =$ _____ 9) $-10 \cdot (-2 \cdot 18) =$ _____ 10) $-(4 + -x) =$ _____

11) $-844 \div 4 =$ _____ 12) $\frac{-183}{-61} =$ _____ 13) $891 \div -91 =$ _____

14) $-2(x + 3) =$ _____ 15) $3(2x - 3) - (x - 5) =$ _____

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Write in simplest form:

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

17) $\frac{2}{3} + \frac{5}{8} + \frac{5}{6} =$ _____

18) $\frac{2}{3}(3x + 9) =$ _____

19) $9 - 2\frac{1}{3} =$ _____

20) $10\frac{1}{4} - 3\frac{2}{3} =$ _____

21) $\frac{1}{2} \cdot \frac{5}{8} \cdot \frac{4}{5} =$ _____

22) $-\frac{16}{9} \div 8 =$ _____

23) $-\frac{3}{8} \div \frac{3}{4} =$ _____

Solve each equation below and check your answers:

24) $x + 22 = 104.8$

25) $184 - x = 51$

26) $x - 6 = 30 + 12$

27) $30x = 480$

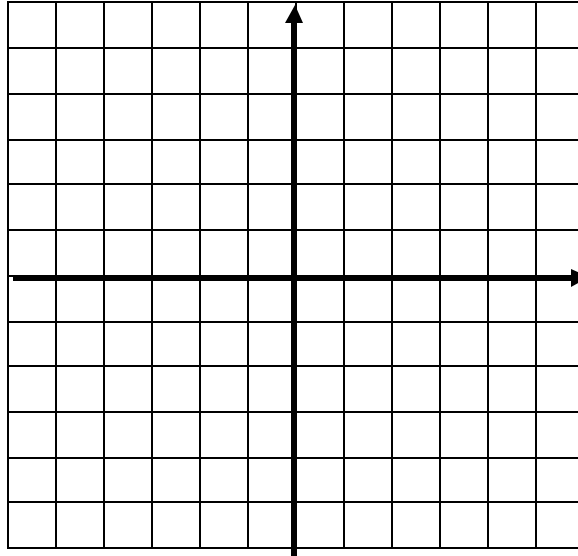
28) $4y - 8 = 20$

29) $17 = \frac{x}{3}$

30) $\frac{x}{24} = \frac{5}{12}$

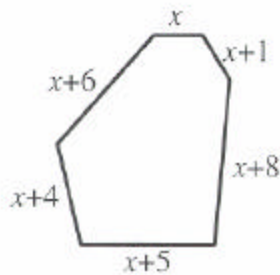
Plot each of the following points on the grid below. Use the letter to label the point on the graph.

- 41) A(3,0) B(5,5) C(-1,2) D(-3,-2) E(0,-3)



Answer in complete sentences where appropriate. Show all your work to receive full credit.

- 42) The perimeter of the figure below is equal to 150 cm.



- What is the length of the longest side of the polygon? Use mathematics to explain how you determined your answer. Use words, symbols, or both in your explanation.

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43) Find the Greatest Common Factor (GCF) of the following:

- a) 36 and 40 _____ b) 6, 12, and 21 _____

44) Name all possible factors of the following:

- a) 24 _____ b) 55 _____

45.ECR) Taylor is participating in a new fitness program in which he is required to report his weight at the end of each week. The table below shows some of his results.

Number of Weeks in the Fitness Program	Weight (in pounds)
2	181
5	176
9	167
12	160
16	153
19	148

- Graph the data from the table on the grid provided. Use a straight edge to sketch the trend.
- Explain the relationship between the number of weeks in the Fitness Program and the weight in pounds.
- Using information from the graph and table, predict Taylor's starting weight and weight after 25 weeks in the Fitness Program.

