



City of Brockton

BROCKTON PUBLIC SCHOOLS

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Dear Student/Parent,

The attached Math Packet is intended for students taking a Geometry Class in the fall. The packet contains problems emphasizing necessary skills for the student beginning this course. While completion of these problems is optional, it is important to note that if you complete this packet successfully you will be eligible for up to 5 points extra credit on your term I average.

You may seek help on the problems. It is hoped that you will do whatever is necessary to complete all of the problems successfully. You must submit the answer sheet (which details the problems that must be done) and your work on separate sheets of paper. The answer sheet and work should be stapled together and submitted to your teacher on or before Tuesday, September 7, 2010. If you are in a second semester math class please return the completed packet to the Green Math Office by September 7, 2010. Late packets will not be accepted.

The following book references can be used to find information to help you complete these problems. You may also access any other sites or other means of help.

Go to www.Math.glencoe.com and use the appropriate user name and password.

Algebra I user name: ALG1 password: wRec84ehed

Geometry user name: GEO password: v7tr2SwAgU

Algebra II user name: ALG2 password: N4c6abrada

Advanced Math (Pre-Calculus) user name: AMC password Zaye9uB7ze

Good luck in completing this work. Remember while it is optional, it is an opportunity for all students to take a step in improving their term I grade and to review some important math skills at the same time.

Thanks,

Bob Perkins

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Name: _____

Directions: Attached is the summer packet for students entering Geometry in the fall. Your new math teacher will inform you of the due date. As a reference, you may wish to go to:

www.Math.glencoe.com Algebra I user name: ALG1 password: wRec84ehed

All answers are to be shown on this sheet. All work must be shown on the attached sheets in a neat and orderly manner.

1.	9.	17.	25.	33.	41.
2.	10.	18.	26.	34.	42.
3.	11.	19.	27.	35.	43.
4.	12.	20.	28.	36.	44.
5.	13.	21.	29.	37.	45.
6.	14.	22.	30.	38.	46.
7.	15.	23.	31.	39.	47.
8.	16.	24.	32.	40.	48.

Additionally, Honor Geometry students must complete:

49.	51.	53.	55.
50.	52.	54.	56.

Solving Multi-Step Equations

Solve each equation. Check your solution

1. $5x + 2 = 27$	2. $14n - 8 = 34$
3. $8 - 5w = -37$	4. $4 = 3a - 14$
5. $5 + \frac{x}{4} = 1$	6. $16 = \frac{d - 12}{14}$
7. $\frac{5}{2}z - 8 = -3$	8. $\frac{1}{2}y - \frac{1}{8} = \frac{7}{8}$

Solving Equations with Variables on Both Sides

Solve each equation. Check your solution

9. $6x + 2 = 3x - 1$

10. $2x - 21 = 3 - 4x$

11. $2x - 6 = x + 4$

12. $-6x + 14 = -12 - 8x$

13. $-4 - 3x = 7x - 6$

14. $\frac{3+y}{4} = \frac{-y}{8}$

15. $\frac{1}{3}z - 4 = -\frac{1}{3}z + 18$

16. $6(n-1) = 2(2n+4)$

Multiplying Binomials

Simplify

17. $(x+3)(x-4)$	18. $(2x-3)(2x+3)$
19. $(3x+5)(5x+3)$	20. $(x-6)(3x-9)$
21. $(x-8)^2$	22. $(3a-b)(2a+4b)$

Factoring Trinomials

Factor each trinomial. If it cannot be factored please label it "prime"

23. $x^2 + 8x + 15$	24. $x^2 - 11x + 28$
25. $x^2 - 10x + 25$	26. $x^2 - 8x - 65$
27. $3x^2 + 2x - 8$	28. $2x^2 + 15x + 18$
29. $16x^2 - 8x + 1$	30. $9x^2 - 49$

Simplifying Radicals Expressions

Simplify

31. $\sqrt{28}$	32. $\sqrt{45}$
33. $\sqrt{75}$	34. $\sqrt{98}$
35. $\sqrt{280}$	36. $\frac{\sqrt{5}}{\sqrt{3}}$
37. $\frac{\sqrt{8}}{\sqrt{2}}$	38. $\frac{6\sqrt{2}}{\sqrt{3}}$

Slope

Find the slope that passes through each pair of points

39. (4,9) and (1,6)	40. (-4, -1) and (-2, -5)
41. (14, -8) and (7, -6)	42. (4, -2) and (4, -8)
43. (0, 18) AND (0,-5)	44. x-intercept 6, y-intercept -7

Writing Equations in Slope-Intercept Form

Write an equation for the line that passes through the given point with the given slope.

45. $(-1, -3)$ $\begin{matrix} 3x - y = 14 \\ x - y = 2 \end{matrix}$ $m = 5$	46. $(4, -5)$ $m = -\frac{1}{2}$
47. x-intercept 4, $m = -3$	48. through the origin and $(4, -1)$

Honors Geometry Requirement

Simplify

49. $\frac{5}{7+\sqrt{7}}$

50. $\frac{4}{3-\sqrt{2}}$

51. $2\sqrt{5} + 3\sqrt{45}$

52. $2\sqrt{3} \cdot 3\sqrt{15}$

Solve each systems of equations by using elimination or substitution.

53. $4a - 4b = -10$
 $2a + 4b = -2$

54. $x + 2y = 3$
 $x + y = 1$

55. $4x + y = 15$
 $-x - 3y = -12$

56. $3x - y = 14$
 $x - y = 2$