

ALGEBRA 1B PREREQUISITE PACKET

Paint Branch High School Math Department

PAINT BRANCH HIGH SCHOOL *MATH DEPARTMENT*



Algebra 1B *Prerequisite Packet*

The problems in this packet are designed to help you review topics from previous math courses that are important to your success in Algebra 1.

Student Name: _____

ID#: _____ Date: _____ Pd: _____

Instructions:

- SHOW ALL WORK that leads you to each solution in the space provided.
 - You are permitted to use a calculator and notes from previous mathematics courses to help you, but you should do the work without any help from another person.
 - All work needs to be completed and ready to turn in on the FIRST FRIDAY of school.
 - This packet will count as part of your first quarter grade and there will be a QUIZ on the material.
 - Additional copies of this packet may be printed from the PBHS website.
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Page 1

Name _____

Date _____

Pd _____

Part I – Order of Operations

Use order of operations to determine each answer.

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

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

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

Insert parentheses to make the following equation true.

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

Part II – Distributive Property and Combining Like Terms

Simplify each expression by using the distributive property and/or combining like terms.

5. $4n + 7n =$ _____

6. $-8a + 7b + 2a + 4b - 5b =$ _____

7. $2(x + 3) =$ _____

8. $-(4 - x) =$ _____

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

10. $5(2x - 4) + (x - 7) =$ _____

Part III – One Step Equations

Use inverse operations to solve each equation.

11. $x + 22 = 10$

12. $15 - x = 45$

13. $3x = 48$

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14. $\frac{x}{3} = 27$	15. $\frac{2}{7}x = 4$	16. $\frac{x}{24} = \frac{5}{12}$
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Part IV – Two Step Equations

Solve each equation.

17. $2x + 7 = 15$	18. $\frac{x}{5} - 4 = 2$	19. $-8 - 5x = 2$
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Part V – Three Step Equations

Solve each equation.

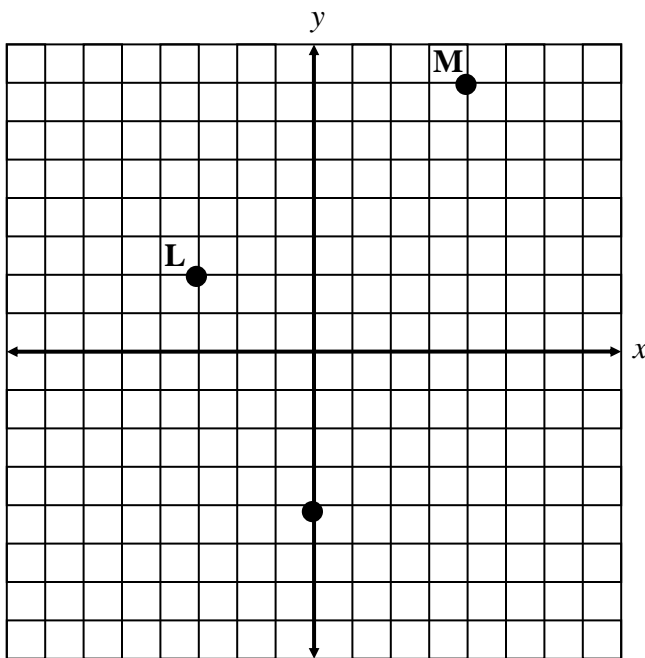
20. $9x + 8 = 3x - 10$	21. $\frac{5x + 9}{2} = 12$
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Part VI – Evaluating Expressions

Evaluate each expression given that $x = 2$, $y = 3$ and $z = 4$.

22. $x + 6 =$	23. $y^2 =$	24. $5z - 3 =$
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Part VII – Graphing on the Coordinate Plane



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

25. A $(3, 0)$

26. B $(-1, 5)$

27. C $(-6, -2)$

Write the coordinates of the each point shown on the graph to the left.

28. L _____

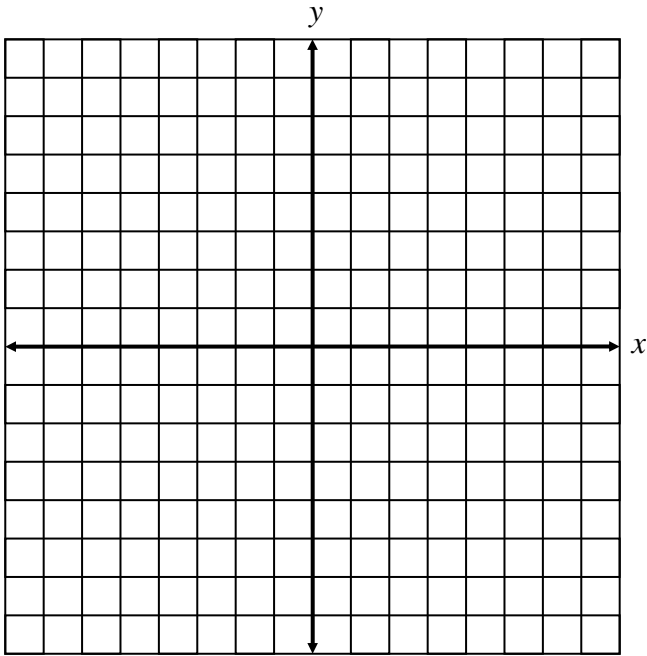
29. M _____

30. N _____

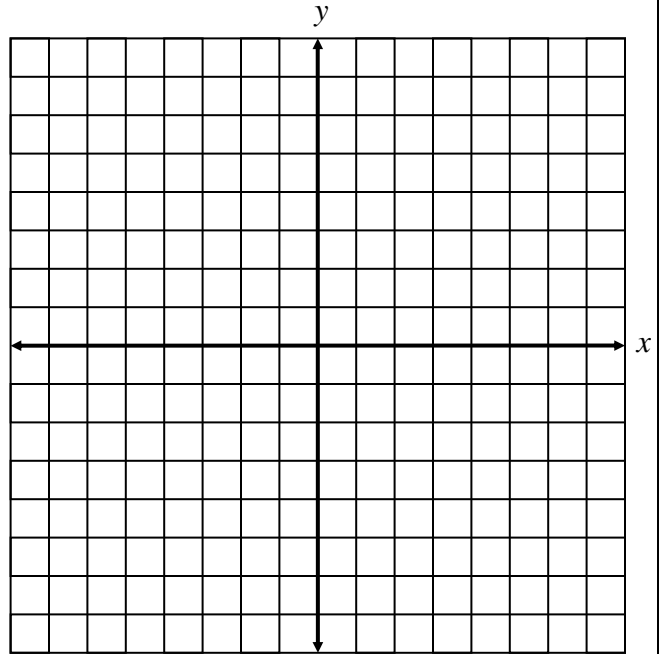
Part VIII – Graphing Equations

Graph each equation.

31. $y = \frac{2}{3}x - 1$



32. $y = -4x + 5$

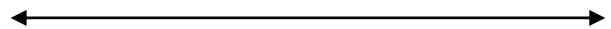
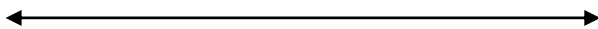


Part IX – Inequalities

Solve and graph each inequality.

33. $\frac{x}{3} > 4$

34. $-2x \geq 6$



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Part X – Patterns and Tables of Values

Write the next three terms in each pattern.

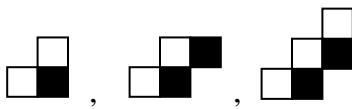
35. 5, 12, 19, 26, ...

_____ , _____ , _____

36. $3x + 4$, $3x + 1$, $3x - 2$, ...

_____ , _____ , _____

37.



_____ , _____ , _____

Complete each table of values.

38.

x	y
0	180
2	174
4	168
6	
8	
10	
12	

39.

x	y
1	10
2	
3	32
4	
5	54
6	
7	76