

HONORS

ALGEBRA

Summer Work

** No calculator !!! **
All work must be shown!

Name: _____

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X _____ (parent signature when complete!)

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SUMMER WORK - LOG SHEET

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Name: _____

Algebra Review: Lesson #1

Adding, Subtracting, Multiplying & Dividing Fractions

Directions: Simplify. Show ALL work.

1. $1\frac{1}{4} + -3\frac{5}{6}$

2. $-7\frac{3}{10} - -4\frac{4}{5}$

3. $(-1\frac{5}{9})(-2\frac{1}{7})$

4. $5\frac{2}{9} \div -1\frac{2}{15}$

5. $-\frac{2}{3} + 6\frac{1}{8}$

6. $-3\frac{2}{5} - \frac{5}{6}$

7. $(-6)(1\frac{3}{10})$

8. $-12 \div \frac{1}{3}$

9. $\frac{5}{8} - 5$

10. $(3\frac{5}{9})(\frac{-9}{32})$

11. $-3\frac{4}{7} \div \frac{-5}{8}$

12. $(-\frac{2}{3})(1\frac{2}{5})(-1\frac{5}{7})$

Directions: Simplify each complex fraction. The first two are done for you. Make sure your final answers are reduced. Show ALL work!!

13. $\frac{-\frac{2}{3}}{\frac{1}{9}}$

14. $\frac{-3\frac{1}{5}}{-\frac{3}{10}}$

15. $\frac{\frac{11}{3}}{-\frac{22}{27}}$

16. $\frac{\frac{12}{7}}{\frac{24}{-63}}$

17. $\frac{-\frac{20}{3}}{5}$

18. $\frac{-\frac{6}{1}}{\frac{1}{9}}$

Name: _____

Algebra Review: Lesson #2

Translating Expressions, Equations, & Inequalities

Directions: Translate each expression.

1. "The sum of a number and 4."	2. "The quotient of a number and -2."
3. "The product of a number and 5."	4. "The difference of a number and 7."
5. "A number squared increased by 1."	6. "Three less than twice a number."
7. "Twice a number divided by 3 times the same number."	8. "Three times the sum of a number and 5."
9. "Four times the quantity x plus 1."	10. "A number squared plus 1."
11. "Eighteen more than triple a number."	12. "8 less than the product of 12 and a number."
13. "Twice the difference of a number and 5."	14. "Six more than triple a number."

Directions: Translate each equation. **DO NOT SOLVE!!**

15. "Twice a number divided by 6 is 42."	16. "Two times the sum of a number and 5 is 20."
17. "Four times the difference of a number and 7 is 32."	18. "One third of a number is 12 less than the number itself."
19. "Ten increased by the quotient of a number and 2 is -15."	20. "One less than the product of a number and 3 is 5 more than the number itself."

Directions: Translate each inequality.

21. "A number is less than 15."	22. "A number is greater than or equal to -3."
23. "A number is at least 90."	24. "A speed limit of 65 mph."
25. "A number that is no more than 20."	26. "A maximum number of 50."
27. "A minimum number of 10."	28. "A number that is no less than 25."

Name: _____

Algebra Review: Lesson #3

Combining Like Terms & the Distributive Property

Directions: Simplify each expression by combining like terms.

1. $8y - 9y$

2. $3x - 7x + 1$

3. $8a - 6 + a - 1$

4. $-2y + 14 - 9y + 5$

5. $-x - 2 + 15x$

6. $-7w - 5 - 7w + 9$

7. $8d - 4 - d - 2$

8. $40 - 9x + 4x + 5$

9. $9a + 8 - 2a - 3 - 5a$

10. $4xy - 6xy + 5y - 9x$

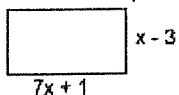
11. $7x + 2y + 5 - 5x + 9y - 1$

12. $-5f - 7g + f - 5g - 4 + f$

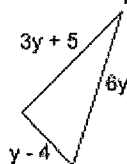
13. $8c^2 - c + 3 + 2c^2 - c + 2$

14. $6n^2 - 2n - 3 + 5n^2 - 9n - 6$

15. Write the perimeter of the rectangle as a simplified expression.



16. Write the perimeter of the triangle as a simplified expression.



Directions: Simplify each expression by distributing.	
17. $8(x + 5) =$ _____	18. $3(2y - 7) =$ _____
19. $-2(3m + 9) =$ _____	20. $-6(z - 1) =$ _____
21. $-(5x + 1) =$ _____	22. $-(x + 4) =$ _____
23. $b(a - 6) =$ _____	24. $7a(3b - 2c + 4) =$ _____
25. $\frac{1}{2}(8x + 2) =$ _____	26. $\frac{2}{3}\left(\frac{1}{4}x - 6\right) =$ _____

Directions: Simplify each expression by distributing and combining like terms.	
27. $-7(w - 4) + 3w - 27$	28. $6(x + 1) - 5(x + 2)$
29. $-5(x + 6) + 7(x - 4)$	30. $8(x + 5) - 4(x + 4)$
31. $-9(x + 2) + 4(x - 6)$	32. $8(x - 6) - 2(x - 2)$
33. $-4(x + 8) - (x - 7)$	34. $6(x + 6) - (x - 6)$
35. $21 - 8(v + 3) + 3 + 7v$	36. $\frac{1}{2}\left(\frac{3}{5}x - 8\right) + \frac{7}{4}\left(\frac{2}{5}x + 4\right)$

Name: _____

Algebra Review: Lesson #4

Solving ONE STEP & TWO STEP Equations

Directions: Solve each ONE STEP equation. SHOW EACH STEP!!

1. $m + 12 = 10$

2. $-2 = g - 9$

3. $-7y = -91$

4. $\frac{x}{9} = -4$

5. $\frac{2}{3}x = 10$

6. $\frac{4}{9}x = -8$

7. $12 = -\frac{6}{5}k$

8. $-\frac{1}{2}m = -9$

Directions: Solve each MULTI-STEP equation. SHOW EACH STEP!!

9. $6x + 8 = 50$

10. $2x - 5 = 11$

11. $13 = -4x + 9$

12. $7 - 3x = 34$

13. $\frac{x}{2} - 7 = 9$

14. $11 = \frac{x}{-5} + 8$

15. $\frac{3}{5}x + 22 = 28$	16. $-\frac{1}{3}x + 1 = -7$	17. $\frac{x-5}{4} = 5$
18. $7 = \frac{r+8}{-5}$	19. $\frac{5x-10}{3} = 25$	20. $12 = \frac{2n+5}{3}$
21. $-10 + \frac{6n+9}{3} = 13$	22. $17 = 12 + \frac{4x+3}{3}$	

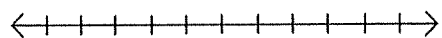
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Algebra Review: Lesson #5

Solving and Graphing Inequalities

Directions: Solve and graph each inequality. SHOW WORK FOR EACH STEP!!

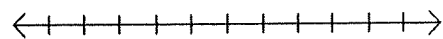
1. $3x + 1 < 10$



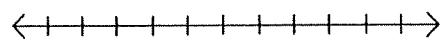
2. $\frac{x}{3} + 10 \geq 15$



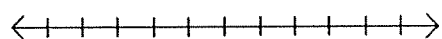
3. $-2x + 22 < 18$



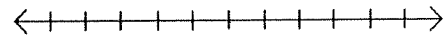
4. $7x + 11 > -31$



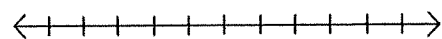
5. $\frac{x}{5} - 3 \leq 6$



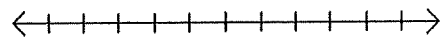
6. $18 - 2x > 4$



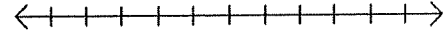
7. $\frac{x}{-2} + 1 > 4$



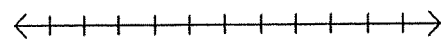
8. $4 - \frac{x}{7} \leq 5$



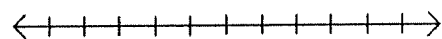
9. $-3x - 4 < 8$



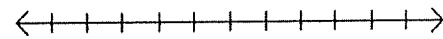
10. $2x + 5 < 17$



11. $\frac{5}{8}x - 1 \leq 9$



12. $-\frac{3}{4}x + 2 > 11$



Name: _____

Algebra Review: Lesson #6

MORE Translating Equations & Inequalities

Directions: Translate each equation or inequality. **DO NOT SOLVE!!**

1. Twice a number plus 4 is 8.	2. The product of 4 and a number plus 17 is 5.
3. The quotient of a number and 6, minus 3, is 1.	4. Two more than 4 times a number is -18.
5. Seven less than twice a number is 5.	6. Five less than the quotient of a number and 3 is -7.
7. One subtracted from the product of 4 and a number is 11.	8. Four more than the quotient of a number and 3 is at least 9.
9. Negative 3 times the quantity x plus 7 is less than -11.	10. Seven more than one-sixth of a number is greater than 3.
11. The sum of 5 and twice a number is at most 27.	12. Four less than two-fifths of a number is no less than 2.
13. -5 times the quantity x squared plus 7 is a maximum of 13.	14. The square root of the quantity three plus a number is a minimum of 10.

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Algebra Review: Lesson #7

Patterns, Equations, and Graphs

Directions: Tell whether the given equation has the given ordered pair as a solution. The first two are done for you.

1. $y = x - 4$; (5,1)

2. $y = x + 8$; (8,0)

3. $y = -x - 2$; (2,-4)

4. $y = -3x$; (2,-6)

5. $y = x + 1$; (1,0)

6. $y = -x$; (-7,7)

7. $y = x + \frac{1}{2}$; $(1, \frac{1}{2})$

8. $y = x - \frac{2}{5}$; $(-2, -2\frac{2}{5})$

9. $\frac{x}{-3} = y$; (2, -6)

Directions: Use a TABLE & an equation to represent each relationship.

10. "Suzanne earns \$22 per hour"

Let h=hours & E=total earnings.

Equation: _____

h	E
0	
1	
2	

11. The calling plan is \$0.10 per minute

Let m=minutes & C=total cost.

Equation: _____

m	C
0	
30	
60	

Directions: Use the TABLE to write an equation to represent each relationship.

12. The table shows the height in feet of a stack of medium sized moving boxes. What is the height of a stack of 14 boxes?

Equation: _____

Boxes (b)	height (h)
2	4.5
3	6.75
5	11.25
7	15.75
8	18

13. The table shows the number of pages Brendan read in terms of hours. How many pages will Brendan read in 12 hours?

Equation: _____

Hours (h)	Pages (p)
1	23
2	46
3	69
4	92
5	115

Name: _____

Algebra Review: Lesson #8

Order of Operations & Evaluating Expressions

Directions: Simplify each expression. Show ALL WORK!!!

1. $(15 - 5) \cdot 2$

2. $7 \cdot 9 - 4(6 + 7)$

3. $22 \div 11 \cdot 9 - 3^2$

4. $2[5^2 + (36 \div 6)]$

5. $\frac{5^2 \cdot 4 - 5 \cdot 4^2}{5(4)}$

6. $6^2 + 3 \cdot 7 - 9$

7. $162 \div [6(7 - 4)^2]$

8. $\frac{(2 \cdot 5)^2 + 4}{3^2 - 5}$

9. $-5 \cdot (7 - 4)^2 - 20$

10. $-4 \cdot (3 + -10) - 1^2$

11. $-9 - [60 \div (-2 \cdot 30) - 8]$

12. $4^2 + (-6)^2 - 3^2$

Directions: Evaluate each expression if $a = 12$, $b = 9$, and $c = 4$.

13. $a^2 + b - c^2$

14. $b^2 + 2a - c^2$

15. $2c(a + b)$

16. $4a + 2b - c^2$

17. $[a^2 \div (4b)] + c$

18. $c^2 \cdot (2b - a)$

19. $\frac{bc^2 + a}{c}$

20. $\frac{2(a-b)^2}{5c}$

Directions: Evaluate each expression if $a = -\frac{1}{4}$, $b = \frac{5}{6}$, $c = -1\frac{1}{2}$, and $d = 2\frac{1}{3}$.

21. $3b - 4a$

22. $18b - 6c$

23. $a + cd$

24. $a(c + 4)$

Name: _____

Algebra Review: Lesson #9

Solving Algebraic Proportions

Directions: Solve by using cross products. Show ALL WORK!!!

1. $\frac{4}{3} = \frac{x}{6}$

2. $\frac{x}{5} = \frac{9}{6}$

3. $\frac{7}{x} = \frac{3}{6}$

4. $\frac{2x}{15} = \frac{2}{5}$

5. $\frac{3}{4} = \frac{2x}{6}$

6. $\frac{2}{10} = \frac{4}{n+5}$

7. $\frac{y-3}{2} = \frac{y}{5}$

8. $\frac{2k-3}{k+9} = \frac{3}{5}$

9. $\frac{x-4}{6} = \frac{x-7}{9}$

10. $\frac{2x-8}{7} = \frac{x-6}{3}$

Name: _____

Solving MULTI-STEP Equations with Distributive Property & Variables on Both Sides

Directions: Solve. Show ALL WORK!!!

1. $2(10 - 6x) = x - 8x$

2. $5x + 4(3x - 8) = 4 + 13x$

3. $2y + 18 = 12 - 6(y + 7)$

4. $x - (5 - 3x) = 7x + 4$

5. $8(m - 5) = 2(3m - 8)$

6. $-4(3 - 6d) = 9(2d - 2)$

7. $6x + 3(5x - 4) = 12(2x - 5)$

8. $-x - (13 + 4x) = -3(5 - 9x) + 2$

Name: _____

SLOPE "m"

Directions: Find the slope using the slope formula. Be sure to reduce all fractions.**Slope = $\frac{\text{rise or fall}}{\text{run}}$ $\frac{(\text{change in } y\text{'s})}{(\text{change in } x\text{'s})}$**

1. $(2, -7) \text{ \& } (-1, 6)$

2. $(-3, 3) \text{ \& } (7, 6)$

3. $(-1, -9) \text{ \& } (5, -6)$

4. $(-4, 9) \text{ \& } (-5, 8)$

5. $(8, -3) \text{ \& } (-7, -1)$

6. $(-5, 3) \text{ \& } (2, 6)$

7. $(8, 5) \text{ \& } (-9, 5)$

8. $(-7, 2) \text{ \& } (5, 1)$

9. $(-4, 3) \text{ \& } (-4, -7)$

10. $(-6, 1) \text{ \& } (3, 5)$

11. $(1, -9) \text{ \& } (1, -6)$

12. $(-8, -3) \text{ \& } (-4, 2)$

13. $(2, 3) \text{ \& } (7, -6)$

14. $(1, -8) \text{ \& } (5, 3)$

15. $(3, -9) \text{ \& } (-4, -9)$

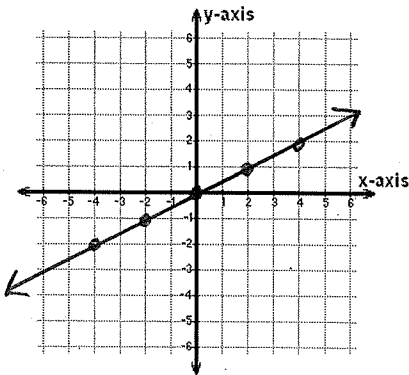
Name: _____

Algebra Review: Lesson #12

Finding SLOPE From a Graph

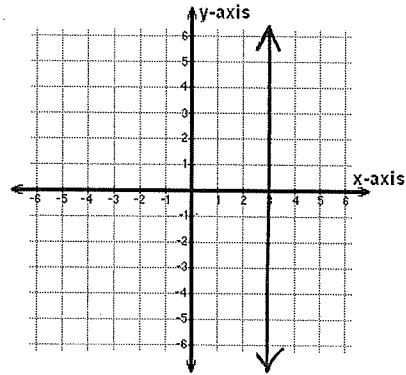
Directions: Find the slope of each line.

1.



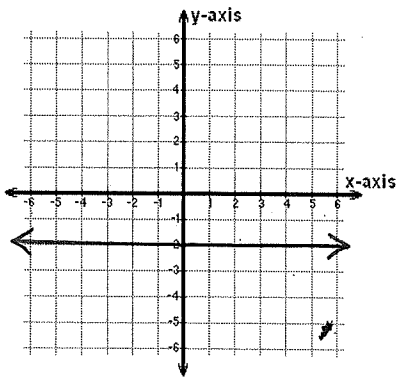
$m = \underline{\hspace{2cm}}$

2.



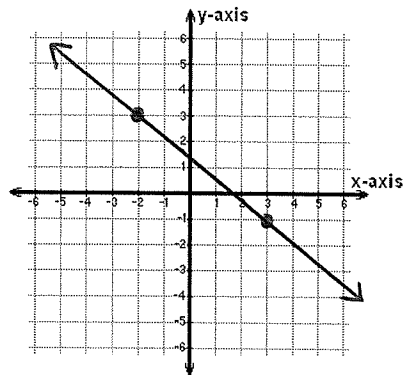
$m = \underline{\hspace{2cm}}$

3.



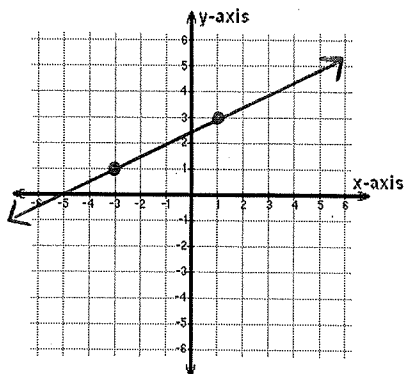
$m = \underline{\hspace{2cm}}$

4.



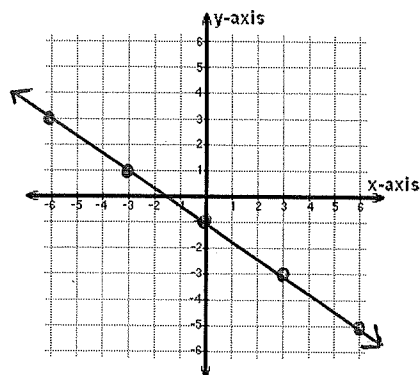
$m = \underline{\hspace{2cm}}$

5.



$m = \underline{\hspace{2cm}}$

6.



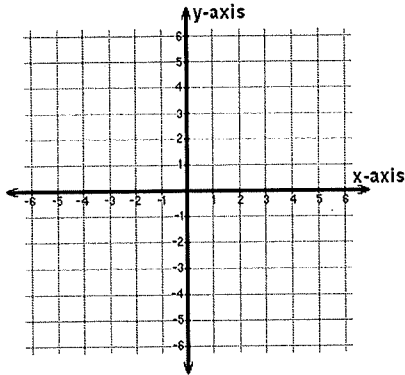
$m = \underline{\hspace{2cm}}$

Name: _____

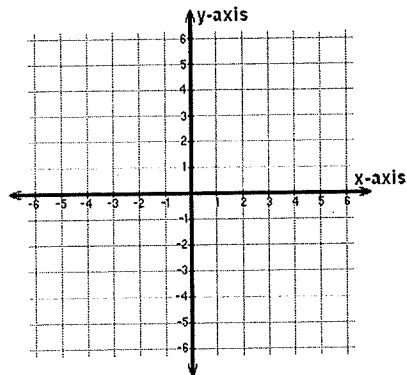
Graphing Lines in Slope-Intercept Form

Directions: State the slope. State the y-intercept. Graph the line.

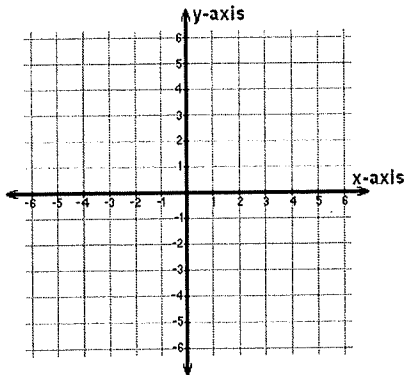
1. $y = \frac{1}{4}x - 1$ $m = \underline{\hspace{1cm}}$ $b = \underline{\hspace{1cm}}$



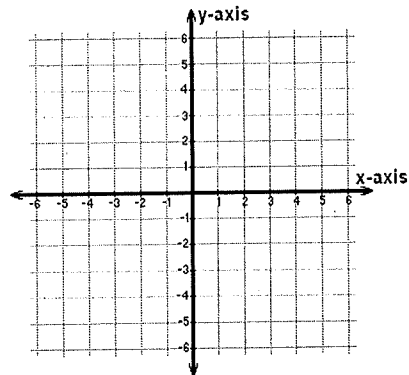
2. $y = -x + 2$ $m = \underline{\hspace{1cm}}$ $b = \underline{\hspace{1cm}}$



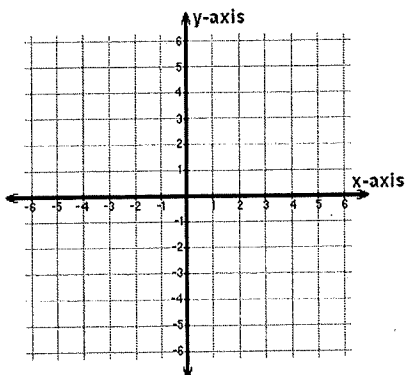
3. $y = x + 1$ $m = \underline{\hspace{1cm}}$ $b = \underline{\hspace{1cm}}$



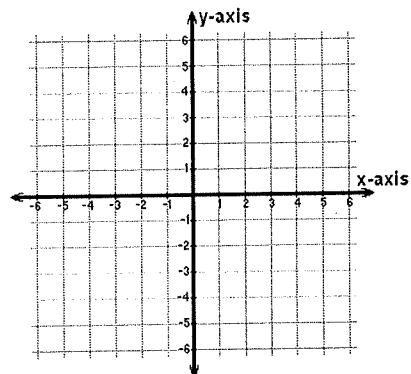
4. $y = \frac{4}{3}x - 4$ $m = \underline{\hspace{1cm}}$ $b = \underline{\hspace{1cm}}$



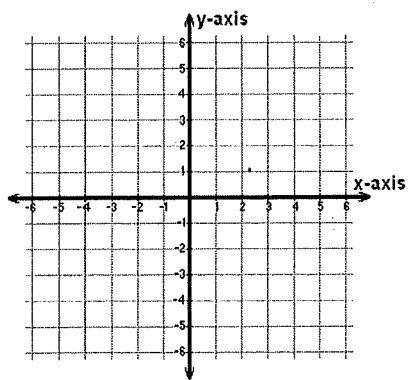
5. $y = -3x - 3$ $m = \underline{\hspace{1cm}}$ $b = \underline{\hspace{1cm}}$



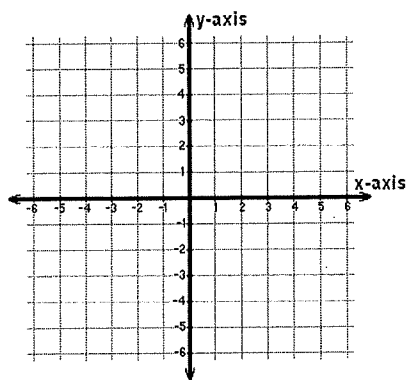
6. $y = -\frac{3}{5}x - 1$ $m = \underline{\hspace{1cm}}$ $b = \underline{\hspace{1cm}}$



7. $y = 3x - 2$ $m = \underline{\hspace{2cm}}$ $b = \underline{\hspace{2cm}}$



8. $y = 4x + 3$ $m = \underline{\hspace{2cm}}$ $b = \underline{\hspace{2cm}}$



Name: _____

Algebra Review: Lesson #14

More Slope & Slope Intercept Form

Directions: Write an equation of a line with the given slope and y-intercept..

1. slope: 8
y-intercept: -3

equation: _____

2. slope: -2
y-intercept: -1

equation: _____

3. slope: -1
y-intercept: 7

equation: _____

4. slope: 0
y-intercept: 4

equation: _____

5. slope: $\frac{1}{2}$
y-intercept: -2

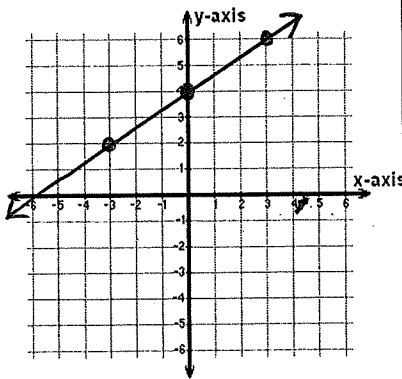
equation: _____

6. slope: $-\frac{3}{4}$
y-intercept: 0

equation: _____

Directions: Write an equation of the line shown in each graph.

7.

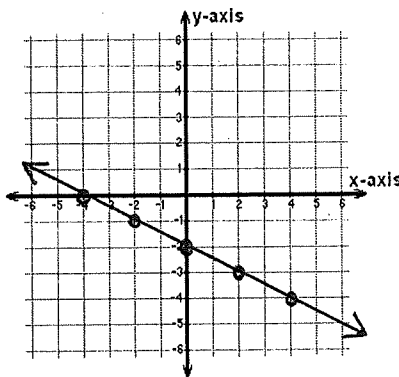


m= _____

b= _____

equation: _____

8.

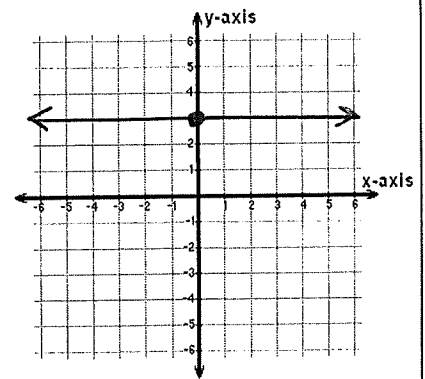


m= _____

b= _____

equation: _____

9.



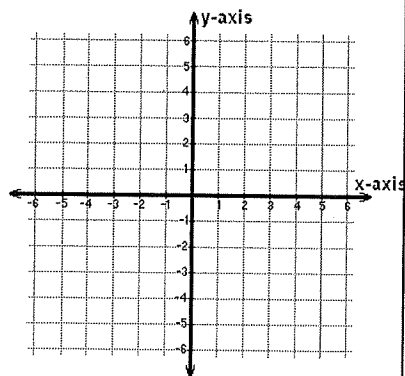
m= _____

b= _____

equation: _____

Directions: Graph each equation.

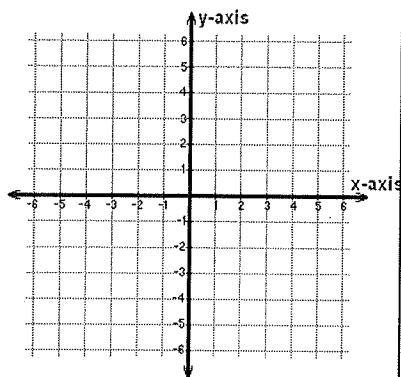
10. $y = 2x + 1$



m= _____

b= _____

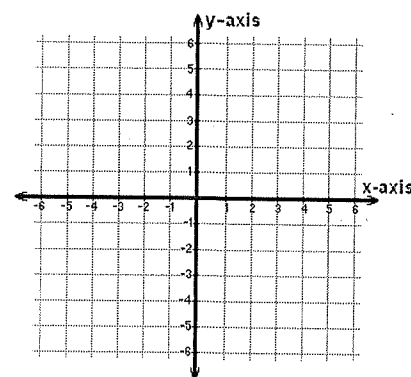
11. $y = -3x + 2$



m= _____

b= _____

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



m= _____

b= _____

ALGEBRA SUMMER PACKET ANSWER KEY

LESSON #1

- | | | |
|----------------------|---------------------|---------------------|
| 1. $-2\frac{7}{12}$ | 2. $-2\frac{1}{2}$ | 3. $3\frac{1}{3}$ |
| 4. $-4\frac{31}{51}$ | 5. $5\frac{11}{24}$ | 6. $-4\frac{7}{30}$ |
| 7. $-7\frac{4}{5}$ | 8. -36 | 9. $-4\frac{3}{8}$ |
| 10. -1 | 11. $5\frac{5}{7}$ | 12. $1\frac{3}{5}$ |
| 13. -6 | 14. $10\frac{2}{3}$ | 15. $-4\frac{1}{2}$ |
| 16. $-4\frac{1}{2}$ | 17. $-1\frac{1}{3}$ | 18. -54 |

LESSON #2 (ANY VARIABLE CAN BE USED)

- | | |
|------------------------------|-----------------------------|
| 1. $n + 4$ | 2. $\frac{x}{-2}$ |
| 3. $5n$ | 4. $x - 7$ |
| 5. $x^2 + 1$ | 6. $2x - 3$ |
| 7. $\frac{2n}{3n}$ | 8. $3(x + 5)$ |
| 9. $4(x + 1)$ | 10. $x^2 + 1$ |
| 11. $3x + 18$ | 12. $12n - 8$ |
| 13. $2(x - 5)$ | 14. $3x + 6$ |
| 15. $\frac{2x}{6} = 42$ | 16. $2(x + 5) = 20$ |
| 17. $4(x - 7) = 32$ | 18. $\frac{1}{3}x = x - 12$ |
| 19. $10 + \frac{x}{2} = -15$ | 20. $3x - 1 = x + 5$ |
| 21. $n < 15$ | 22. $x \geq -3$ |
| 23. $n \geq 90$ | 24. $x \leq 65$ |
| 25. $n \leq 20$ | 26. $x \leq 50$ |
| 27. $x \geq 10$ | 28. $x \geq 25$ |

LESSON #3

- | | |
|----------------------|-------------------------|
| 1. $-y$ | 2. $-4x + 1$ |
| 3. $9a - 7$ | 4. $-11y + 19$ |
| 5. $14x - 2$ | 6. $-14w + 4$ |
| 7. $7d - 6$ | 8. $-5x + 45$ |
| 9. $2a + 5$ | 10. $-2xy - 9x + 5y$ |
| 11. $2x + 11y + 4$ | 12. $-3f - 12g - 4$ |
| 13. $10c^2 - 2c + 5$ | 14. $11n^2 - 11n - 9$ |
| 15. $P = 16x - 4$ | 16. $P = 10y + 1$ |
| 17. $8x + 40$ | 18. $6y - 21$ |
| 19. $-6m - 18$ | 20. $-6z + 6$ |
| 21. $-5x - 1$ | 22. $-x - 4$ |
| 23. $ab - 6b$ | 24. $21ab - 14ac + 28a$ |
| 25. $4x + 1$ | 26. $\frac{1}{6}x - 4$ |
| 27. $-4w + 1$ | 28. $x - 4$ |
| 29. $2x - 58$ | 30. $4x + 24$ |
| 31. $-5x - 42$ | 32. $6x - 44$ |
| 33. $-5x - 25$ | 34. $5x + 42$ |
| 35. $-v$ | 36. $x + 3$ |

LESSON #4

- | | | |
|---------------|--------------|-------------------------|
| 1. $m = -2$ | 2. $g = 7$ | 3. $y = 13$ |
| 4. $x = -36$ | 5. $x = 15$ | 6. $x = -18$ |
| 7. $k = -10$ | 8. $m = 18$ | |
| 9. $x = 7$ | 10. $x = 8$ | 11. $x = -1$ |
| 12. $x = -9$ | 13. $x = 32$ | 14. $x = -15$ |
| 15. $x = 10$ | 16. $x = 24$ | 17. $x = 25$ |
| 18. $r = -43$ | 19. $x = 17$ | 20. $n = 15\frac{1}{2}$ |
| 21. $n = 10$ | 22. $x = 3$ | |

LESSON #5

1. $3x + 1 < 10$ $\begin{array}{r} -1 \quad -1 \\ \hline 3x < 9 \\ \hline x < 3 \end{array}$	2. $\frac{x}{3} + 10 \geq 15$ $\begin{array}{r} -10 \quad -10 \\ \hline \frac{x}{3} \geq 5 \\ \hline 3 \cdot \frac{x}{3} \geq 5 \cdot 3 \\ \hline x \geq 15 \end{array}$	3. $-2x + 22 < 18$ $\begin{array}{r} -22 \quad -22 \\ \hline -2x < -4 \\ \hline \frac{-2x}{-2} < \frac{-4}{-2} \\ \hline x > 2 \end{array}$
4. $7x + 11 > -31$ $\begin{array}{r} -11 \quad -11 \\ \hline 7x > -42 \\ \hline \frac{7x}{7} > \frac{-42}{7} \\ \hline x > -6 \end{array}$	5. $\frac{x}{5} - 3 \leq 6$ $\begin{array}{r} +3 \quad +3 \\ \hline \frac{x}{5} \leq 9 \\ \hline 5 \cdot \frac{x}{5} \leq 9 \cdot 5 \\ \hline x \leq 45 \end{array}$	6. $18 - 2x > 4$ $\begin{array}{r} -18 \quad -18 \\ \hline -2x > -14 \\ \hline \frac{-2x}{-2} > \frac{-14}{-2} \\ \hline x < 7 \end{array}$
7. $\frac{x}{-2} + 1 > 4$ $\begin{array}{r} -1 \quad -1 \\ \hline \frac{x}{-2} > 3 \\ \hline -2 \cdot \frac{x}{-2} > 3 \cdot -2 \\ \hline x < -6 \end{array}$	8. $4 - \frac{x}{7} \leq 5$ $\begin{array}{r} -4 \quad -4 \\ \hline -\frac{x}{7} \leq 1 \\ \hline -7 \cdot \frac{x}{7} \leq 1 \cdot -7 \\ \hline x \geq -7 \end{array}$	9. $-3x - 4 < 8$ $\begin{array}{r} +4 \quad +4 \\ \hline -3x < 12 \\ \hline \frac{-3x}{-3} < \frac{12}{-3} \\ \hline x > -4 \end{array}$
10. $2x + 5 < 17$ $\begin{array}{r} -5 \quad -5 \\ \hline 2x < 12 \\ \hline \frac{2x}{2} < \frac{12}{2} \\ \hline x < 6 \end{array}$	11. $\frac{5}{8}x - 1 \leq 9$ $\begin{array}{r} +1 \quad +1 \\ \hline \frac{5}{8}x \leq 10 \\ \hline \frac{8}{5} \cdot \frac{5}{8}x \leq 10 \cdot \frac{8}{5} \\ \hline x \leq 16 \end{array}$	12. $-\frac{3}{4}x + 2 > 11$ $\begin{array}{r} -2 \quad -2 \\ \hline -\frac{3}{4}x > 9 \\ \hline \frac{-4}{3} \cdot -\frac{3}{4}x > 9 \cdot \frac{-4}{3} \\ \hline x < -12 \end{array}$

LESSON #6 (ANY VARIABLE CAN BE USED)

- | | |
|---------------------------|-------------------------------|
| 1. $2x + 4 = 8$ | 2. $4x + 17 = 5$ |
| 3. $\frac{x}{6} - 3 = 1$ | 4. $4x + 2 = -18$ |
| 5. $2x - 7 = 5$ | 6. $\frac{x}{3} - 5 = -7$ |
| 7. $4x - 1 = 11$ | 8. $\frac{x}{3} + 4 \geq 9$ |
| 9. $-3(x + 7) < -11$ | 10. $\frac{1}{6}x + 7 > 3$ |
| 11. $5 + 2n \leq 27$ | 12. $\frac{2}{5}x - 4 \geq 2$ |
| 13. $-5(x^2 + 7) \leq 13$ | 14. $\sqrt{3 + x} \geq 10$ |

LESSON #7

- | | | | | | | | | |
|---------------|----------------|--------|--------|-------|----------------------------|----------------------------|--------|-------|
| 1. yes | 2. no | 3. yes | 4. yes | 5. no | 6. yes | 7. no | 8. yes | 9. no |
| 10. $E = 22h$ | 11. $C = .10m$ | | | | 12. $h = 2.25b$
31.5ft. | 13. $p = 23h$
276 pages | | |

LESSON #8

- | | |
|---------------------|--------------------|
| 1. 20 | 2. 11 |
| 3. 9 | 4. 62 |
| 5. 1 | 6. 48 |
| 7. 3 | 8. 26 |
| 9. - 65 | 10. 27 |
| 11. 0 | 12. 43 |
| 13. 137 | 14. 89 |
| 15. 168 | 16. 50 |
| 17. 8 | 18. 96 |
| 19. 39 | 20. $\frac{9}{10}$ |
| 21. $3\frac{1}{2}$ | 22. 24 |
| 23. $-3\frac{3}{4}$ | 24. $-\frac{5}{8}$ |

LESSON #9

- | | |
|-----------------------|-----------------------|
| 1. $x = 8$ | 2. $x = 7\frac{1}{2}$ |
| 3. $x = 14$ | 4. $x = 3$ |
| 5. $x = 2\frac{1}{4}$ | 6. $n = 15$ |
| 7. $y = 5$ | 8. $k = 6$ |
| 9. $x = -2$ | 10. $x = 18$ |

LESSON #10

- | | |
|-------------|-------------|
| 1. $x = 4$ | 2. $x = 9$ |
| 3. $y = -6$ | 4. $x = -3$ |
| 5. $m = 12$ | 6. $d = -1$ |
| 7. $x = 16$ | 8. $x = 0$ |

LESSON #11

1. $m = -\frac{13}{3}$

4. $m = 1$

7. $m = 0$

10. $m = \frac{4}{9}$

13. $m = -\frac{9}{5}$

2. $m = \frac{3}{10}$

5. $m = -\frac{2}{15}$

8. $m = -\frac{1}{12}$

11. m is undefined

14. $m = \frac{11}{4}$

3. $m = \frac{1}{2}$

6. $m = \frac{3}{7}$

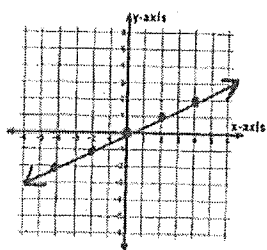
9. m is undefined

12. $m = \frac{5}{4}$

15. $m = 0$

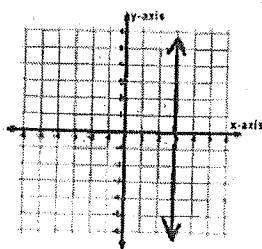
LESSON #12

1.



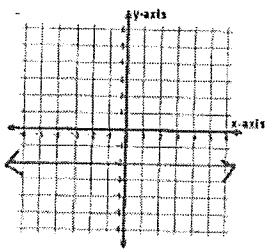
$m = \frac{1}{2}$

2.



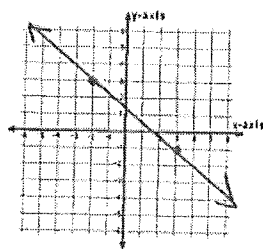
$m = \text{undefined}$

3.



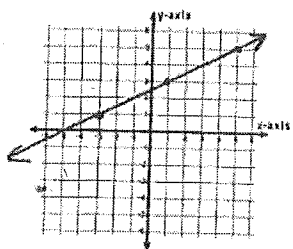
$m = 0$

4.



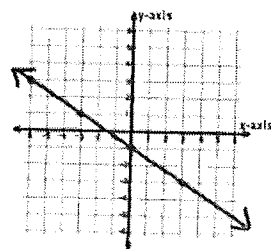
$m = -\frac{4}{5}$

5.



$m = \frac{1}{2}$

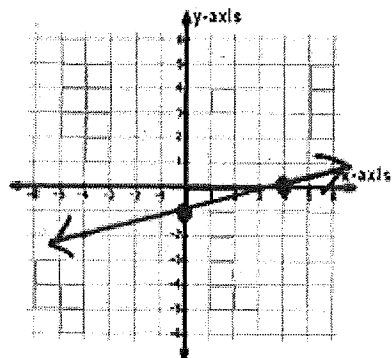
6.



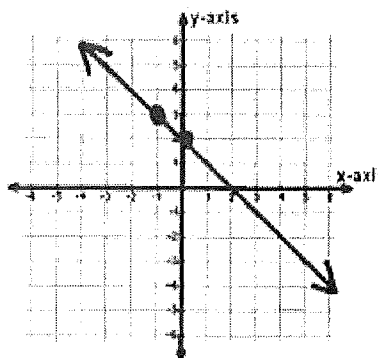
$m = -\frac{4}{5}$

LESSON #13

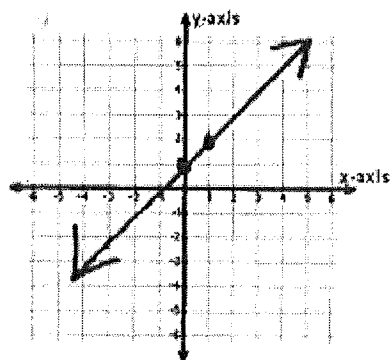
1. $y = \frac{1}{4}x - 1$ $m = \frac{1}{4}$ $b = -1$



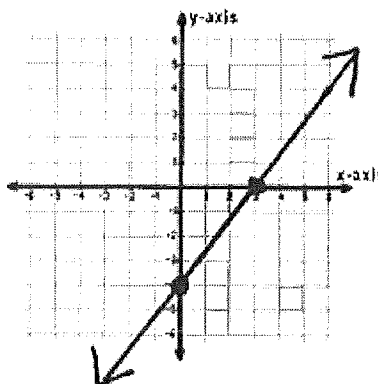
2. $y = -x + 2$ $m = -1$ $b = 2$



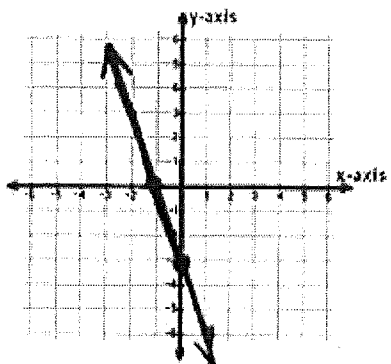
3. $y = x + 1$ $m = 1$ $b = 1$



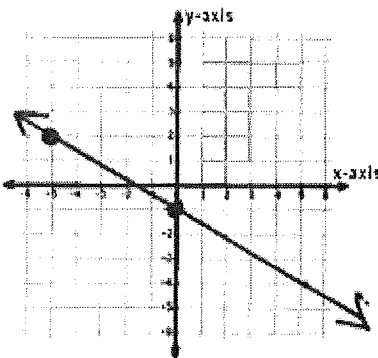
4. $y = \frac{4}{3}x - 4$ $m = \frac{4}{3}$ $b = -4$



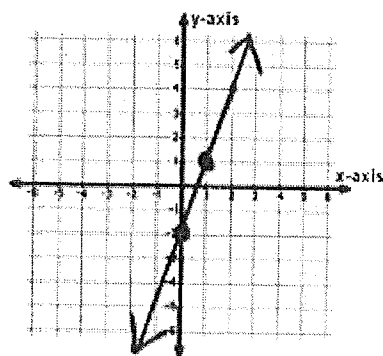
5. $y = -3x - 3$ $m = -3$ $b = -3$



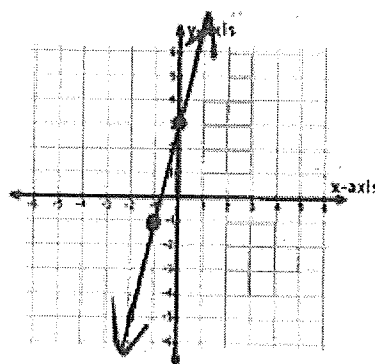
6. $y = -\frac{3}{5}x - 1$ $m = -\frac{3}{5}$ $b = -1$



7. $y = 3x - 2$ $m = 3$ $b = -2$



8. $y = 4x + 3$ $m = 4$ $b = 3$



LESSON #14

1. slope: 8
y-intercept: -3

equation: $y = 8x - 3$

2. slope: -2
y-intercept: -1

equation: $y = -2x - 1$

3. slope: -1
y-intercept: 7

equation: $y = -x + 7$

4. slope: 0
y-intercept: 4

($y = 0x + 4$)
equation: $y = 4$

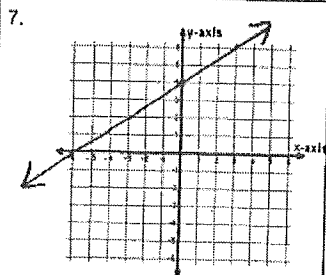
5. slope: $\frac{1}{2}$
y-intercept: -2

equation: $y = \frac{1}{2}x - 2$

6. slope: $-\frac{3}{4}$
y-intercept: 0

equation: $y = -\frac{3}{4}x$

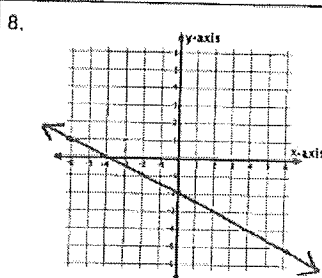
Directions: Write an equation of the line shown in each graph.



$m = \frac{2}{3}$

$b = 4$

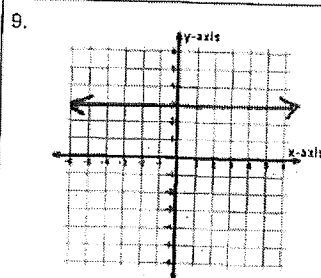
equation: $y = \frac{2}{3}x + 4$



$m = -\frac{1}{2}$

$b = -2$

equation: $y = -\frac{1}{2}x - 2$



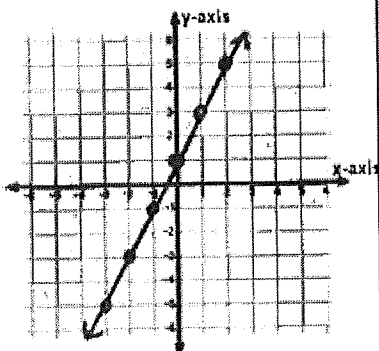
$m = 0$

$b = 3$

($y = 0x + 3$)
equation: $y = 3$

Directions: Graph each equation.

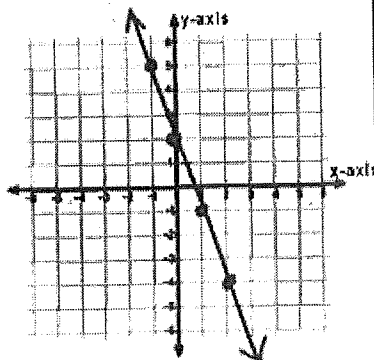
10. $y = 2x + 1$



$$m = \frac{2}{1}$$

$$b = 1$$

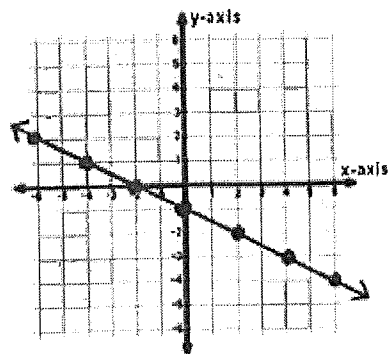
11. $y = -3x + 2$



$$m = \frac{-3}{1}$$

$$b = 2$$

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



$$m = \frac{-1}{2}$$

$$b = -1$$

THANK YOU SO MUCH FOR YOUR HARD WORK! HOPE YOU HAVE HAD A GREAT SUMMER!!!