Name: _____ Class Period: _____

4.4

Algebra I Agenda

Progress Report Due FRIDAY. Don't forget the last page!!

				Stamp
Monday	1/26/2015	Objective:	Solving Systems	
		Assignment:	"Solving Problems with Graphs"	
Tuesday	1/27/2015	Objective:	Solving Systems	
		Assignment:	Begin Review Math Blitz 4:30-6:30PM	
Wednesday	1/28/2015	Objective:	Review	
		Assignment:	Finish review & STUDY!	
Thursday	1/29/2015	Objective:	Test	
		Assignment:	None Math Blitz 4:30-6:30PM	
Friday	1/30/2015	Objective:	Solving Systems Newsletter	
		Assignment:	HW 4.4 Due Today	

Warm-Up Grade: _____ Final Weekly HW Grade: _____

Bellwork

Name: _____

Period: _____

Week of _____ - _____

Monday

thursday

Tuesday

Friday

Wednesday

CHALLENGE

Solving Problems With Graphs

Solve each problem by writing and graphing a system of equations that models the situation.

Situation 1. ROCKET RIDE.

The Rocket Coaster has 10 cars, some that hold 4 people and some that hold 8 people. There is room for 56 people altogether. How many 4-passenger cars are there? How many 8-passenger cars are there?

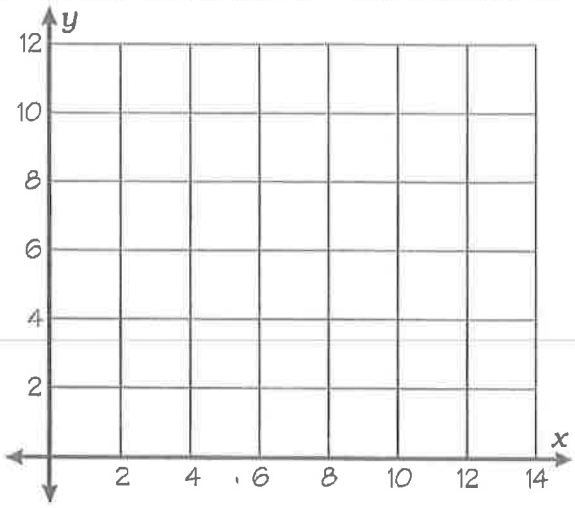
Let x = number of 4-passenger cars

Let y = number of 8-passenger cars

*equation #1:*_____

*equation #2:*_____

Solution:_____



Situation 2. FUN, FUN, FUN.

The cost of admission to Funland Park was $70 for a group of 2 adults and 5 children. The admission was $84 for another group of 4 adults and 3 children. Find the admission price for each adult and each child.

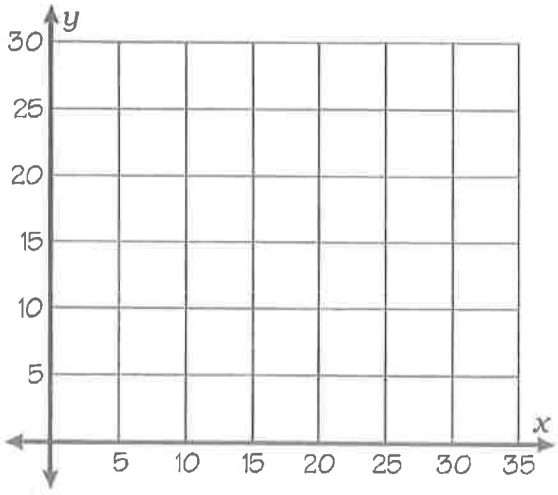
Let x = price of an adult's admission

Let y = price of a child's admission

*equation #1:*_____

*equation #2:*_____

Solution:_____



Situation 3. HOW ABOUT A KISS?

The number of calories in a chocolate kiss is 20 less than the number of calories in a caramel cluster. Three kisses plus four clusters together have 360 calories. How many calories are in each?

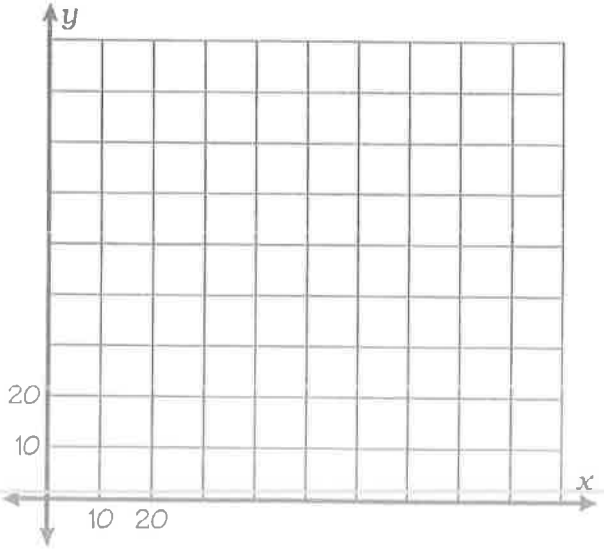
Let x = calories in a chocolate kiss

Let y = calories in a caramel cluster

*equation #1:*_____

*equation #2:*_____

Solution:_____



Algebra I

Unit 6 Test 1 Review

Name: _____

Date: _____ Period: _____

Remember to study your notes and old homework. Show all work to receive credit!!

#1-4: Determine the <u>number</u> of solutions to each system of equations (One, None, or Infinite)

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

2. $y = \frac{1}{3}x + 17$
   $8x - y - 6 = 0$

3. $y = -x - 5$
   $y = -x + 4$

4. $3x - 9y = 12$
   $-x + 3y = -4$

#5-8: Solve the following systems of equations. Write which method you used to solve.

5. $-2x + 2y = 6$
   $3x - y = 3$

6. $y = -\frac{2}{3}x + \frac{1}{3}$
   $4x + 3y = 11$

7. $-3y = -15$
   $x - 2y = -1$
   , then x + y = ?

8. $-5x + y = -2$
   $2x + y = 5$
   , then xy = ?

#9-10: Is the point (-2,5) a solution to the following systems?

9. $2x - y = -9$
   $-x - 2y = -8$

10. $y = -2x + 1$
    $2x + y = 10$

11. Write the equation that represents each table. What is the solution to the system of equations?

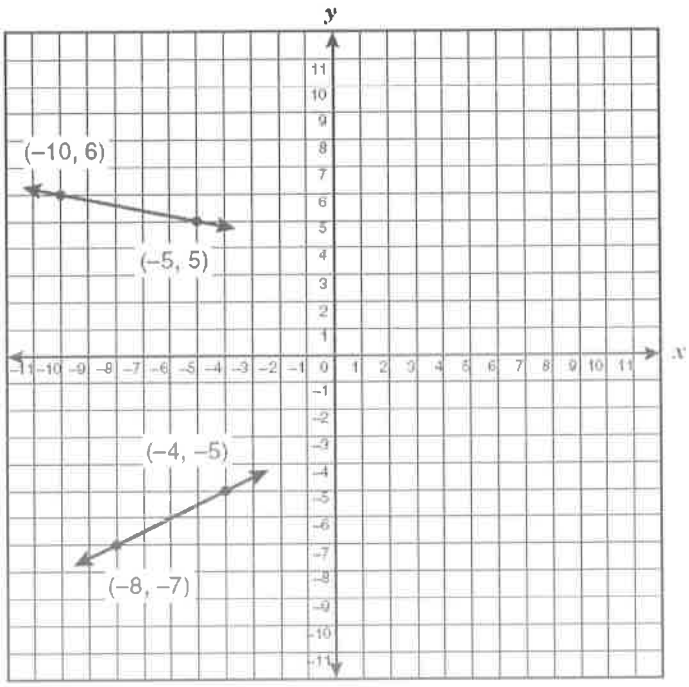
x	y
-3	0
-1	1
1	2
2	2.5

x	y
-1	1
0	-2
3	-11
5	-17

y= _____ y= _____ Solution: _____

12. The equations of two lines are $6x - y = 4$ and $y = 4x + 2$. What is the value of x in the solution for this system of equations?

13. What is the solution to the following system of equations?



14. In the system of equations $4x + 5y = 8$ and $2x - 3y = 18$, which expression can be correctly substituted for y in the equation $4x + 5y = 8$?

A. $-\frac{2}{3}x + 6$ B. $\frac{2}{3}x - 6$ C. $-\frac{2}{3}x - 6$ D. $\frac{2}{3}x + 6$

15. Which of the following representations accurately describes the following system of equations?

$3x + y = -6$

$5x + y = -10$

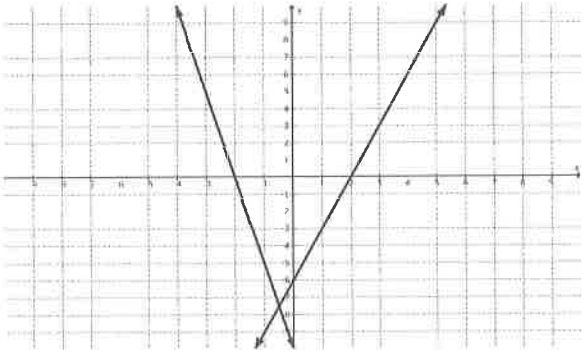
I. $y = -3x - 6$

$y = -5x - 10$

II.

X	Y1	Y2
-3	3	5
-2	0	0
-1	-3	-5
0	-6	-10
1	-9	-15

III.



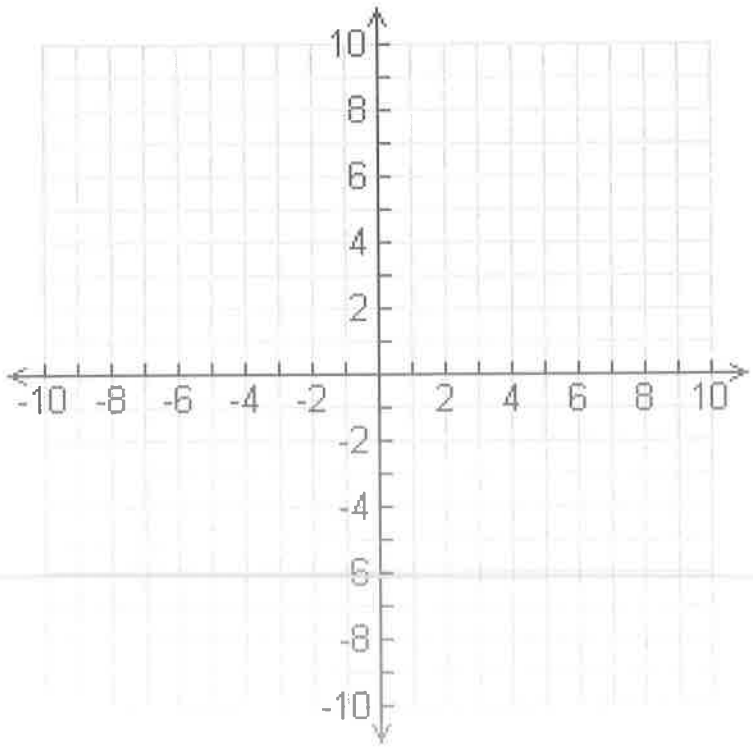
A. I only
B. II only
C. I and II
D. I and III

16. Graph the systems of equations on the graph below. Then label the solution on the graph and record your answer.

$x - 3y = 6$

$4x + 2y = 24$

SOLUTION:



Write a system of equations.

17. One number is 8 more than 3 times another number. Their sum is 86. Write a system of equations to find the two numbers.

18. Maggie's coin collection consists of dimes and quarters. If she has 53 coins worth $7.85, write a system of equations to determine how many dimes and quarters she has.

19. Adult movie tickets cost $8 and kids' tickets cost $5. At a particular movie there were 125 tickets sold for $850. Write a system of equations to determine how many of each type of ticket were sold.

20. Some students want to order t-shirts for Carousel. One company charges $9.65 per shirt plus a setup fee of $43. Another company charges $8.40 per shirt plus a $58 fee. Write a system of equations to determine for what number of shirts will have the same cost at both companies.

21. Kelly will enclose her rectangular tomato garden with 32 feet of fencing. The length of the garden, l, is 3 times the width, w. Which system of equations can be used to find the dimensions of her garden?

A. $l + w = 32$, $w = 3l$

B. $2l + 2w = 32$, $w = 3l$

C. $l + w = 32$, $l = 3w$

D. $2l + 2w = 32$, $l = 3w$

22. Mindy and Jasmine went to a store to buy DVD's on sale for $5 each, tax included. Mindy purchased two and half times as many DVD's as Jasmine purchased. Together they purchased 14 DVD's. Which system of linear equations can be used to determine m, the number of DVD's Mindy purchased and j, the number of DVD's Jasmine purchased?

A. $m + j = 14$, $m = \frac{1}{2}j$

B. $m + j = 14$, $m = \frac{5}{2}j$

C. $5m + 5j = 14$, $j = \frac{1}{2}m$

D. $m + j = 14$, $j = \frac{5}{2}m$

Name _____ Date _____ Class _____

Test Preparation Practice

Algebra 1

A.1.D Represent relationships among quantities using concrete models, tables, graphs, diagrams, verbal descriptions, equations, and inequalities.

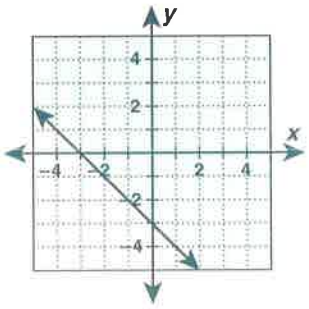
Solve each problem. Choose the best answer for each question and record your answer on the Student Answer Sheet. Figures are not drawn to scale

1. What is the relationship between x and y in the table?

x	y
−2	−8
2	−4
4	−2
6	0

A $y = x + 6$
B $y = x - 6$
C $y = \frac{1}{2}x + 2$
D $y = x - 4$

2. Which inequality best describes the graph shown below?



F $y \geq -3x$
G $y \geq -x - 3$
H $y \geq -3x - 3$
J $y \geq x - 3$

3. Rhonda received a gift card for $25 worth of yogurt sundaes at the Honeybear Sundae Parlor. If the cost of each sundae is $3.75, which table best describes, b, the balance remaining on the gift card after she buys s yogurt sundaes?

A

s	b
2	$2.50
4	$6.25
5	$10.00
6	$17.50

B

s	b
1	$22.50
3	$17.50
5	$6.25
6	$2.50

C

s	b
2	$17.50
4	$10.00
5	$6.25
6	$2.50

D

s	b
1	$21.25
4	$15.00
5	$6.25
6	$0.00

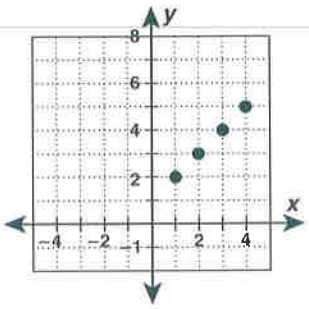
Name _____ Date _____ Class _____

4. The function $f(x) = \{(2, 3), (3, 4), (4, 5), (5, 6)\}$ can be represented in several other ways. Which is NOT a correct representation of the function $f(x)$?

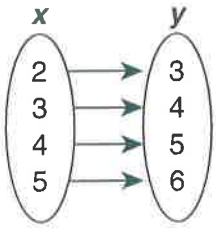
F x is a natural number less than 6 and greater than 1 and y is one more than x.

G $y = x + 1$ and the domain is $\{2, 3, 4, 5\}$.

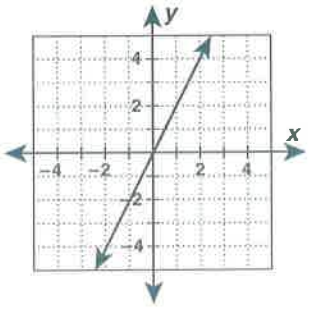
H



J



5. Which description of the relationship between x and y best matches the graph below?



A The value of x is 2 times the value of y.

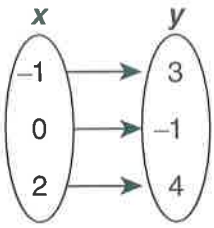
B The value of x is 2 less than the value of y.

C The value of x is 2 more than the value of y.

D The value of y is 2 times the value of x.

6. Which mapping best represents the function $y = 2x^2 - 1$ when the replacement set for x is $\{-1, 0, 2\}$?

F



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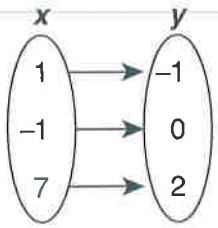

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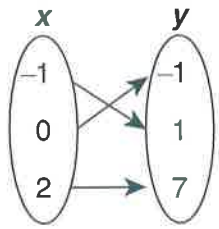

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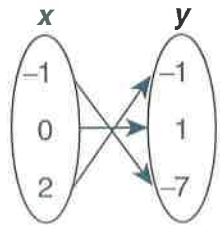

7. Which equation represents the relationship of the data in the table?

x	y
−2	2
2	4
4	5
6	6

A $y = x + 4$

B $y = x - 4$

C $y = -2x$

D $y = \frac{1}{2}x + 3$