



Algebra 1 Agenda

End of 4th six weeks is 2/13. Don't forget the last page!!

				Stamp
Monday	2/2/2015	Objective:	Systems of Inequalities	
		Assignment:	Practice #1-8	
Tuesday	2/3/2015	Objective:	Systems of Inequalities	
		Assignment:	Practice #1-4	
Wednesday	2/4/2015	Objective:	Applications	
		Assignment:	Practice #1-10	
Thursday	2/5/2015	Objective:	Review	
		Assignment:	Study!!	
Friday	2/6/2015	Objective:	Test	
		Assignment:	HW 4.1 - 4.5 Due Today	

Be...work

Week of _____ - _____

Name: _____

Period: _____

Monday

thursday

Tuesday

Friday

Wednesday

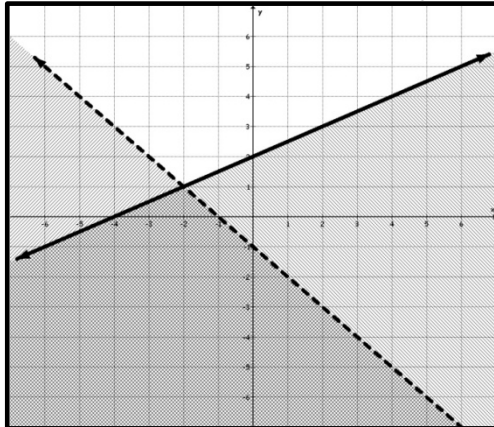
CHALLENGE

Practice – Systems of Inequalities

pp 421-426

Name _____ Date _____ Period _____

1. State which points are solutions to the system of inequalities graphed below.



Yes or No

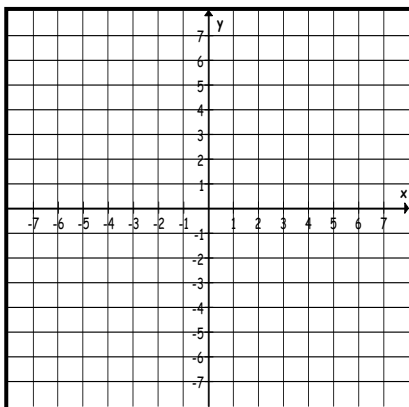
- | | |
|-------------|-------|
| A. (0, 0) | _____ |
| B. (-3, 0) | _____ |
| C. (-1, -5) | _____ |
| D. (1, -2) | _____ |
| E. (-4, 3) | _____ |
| F. (-4, 0) | _____ |

2. Is (2, -3) a solution of the system of inequalities $8 \geq 2x - y$ and $2y < -4x - 2$?

Solve each by graphing, then name one point that lies in the solution area.

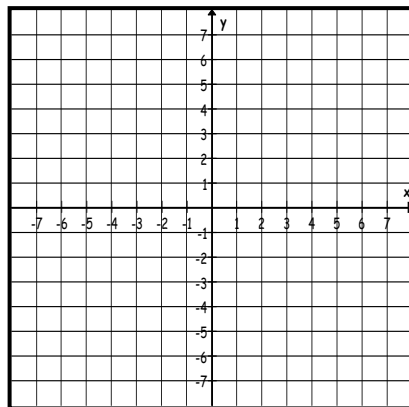
3. $y \geq 2x$

$x \geq -1$



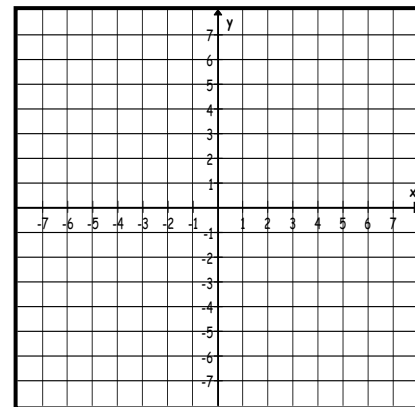
4. $y < x - 1$

$y \leq 2x + 1$



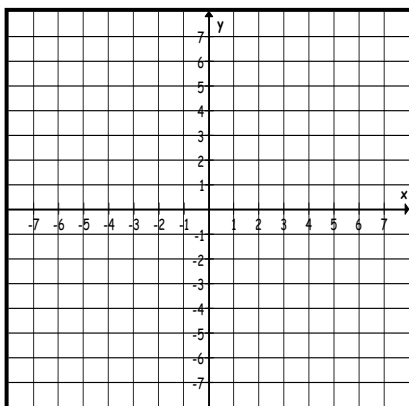
5. $y > x$

$x - y \geq 3$



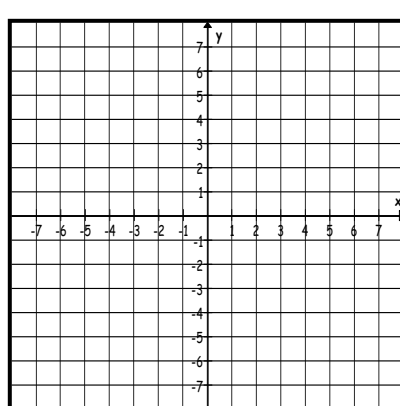
6. $y \geq x + 1$

$4x + 5y \geq 20$



7. $x - 2y > -6$

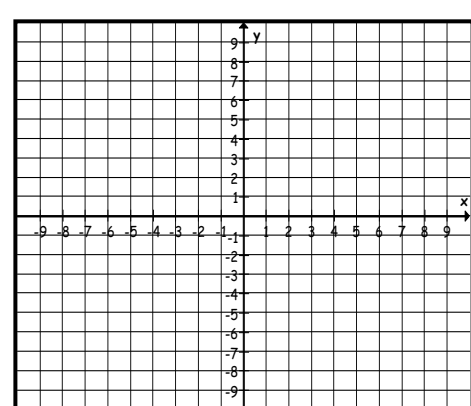
$2x + 2y \geq 5$



8. $x + y \leq 8$

$x \geq 0$

$y \geq 3$

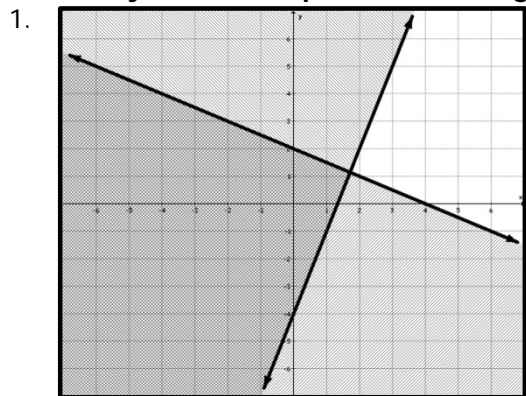


Practice – Systems of Inequalities Day 2

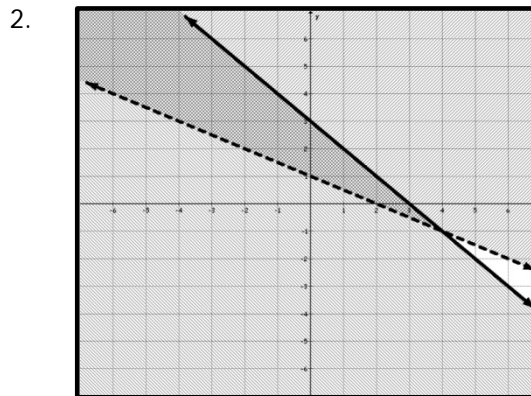
pp 421-426

Name _____ Date _____ Period _____

Write a system of inequalities for the graphs below.



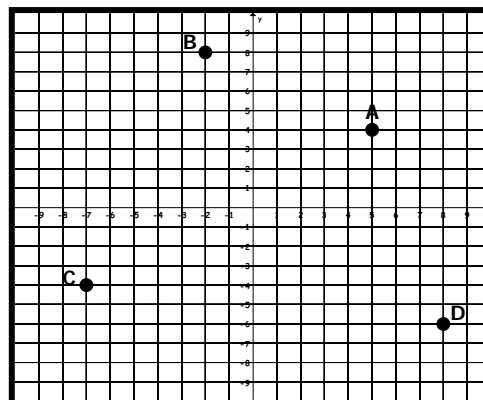
Inequalities



Inequalities

3. For which point is $y \geq -\frac{9}{2}$ and $x < -\frac{17}{5}$?

- A. Point A
- B. Point B
- C. Point C
- D. Point D



4. Jessica is buying hats for everyone invited to her birthday. The Party Store is selling party hats for \$2 each and crowns for \$5 each. Jessica expects no more than 20 people.

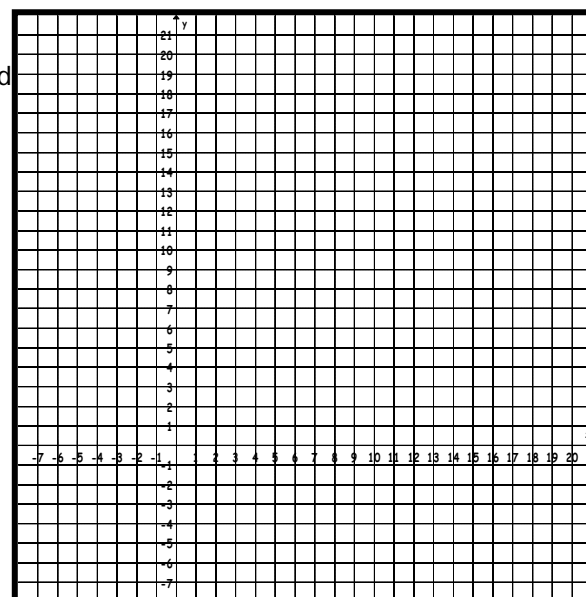
A) Write and solve (by graphing) the system of inequalities to find out how many party hats, x , and crowns, y , Jessica can buy if she does not want to spend more than \$60.

B) Is the ordered pair $(-5, 10)$ a solution to this situation?

C) Is the ordered pair $(2.5, 8.5)$ a solution to this situation?

D) If Jessica decides to buy 9 party hats, what is the maximum number of crowns she can buy?

E) If Jessica decides to buy 6 crowns, what is the minimum and maximum number of party hats she can buy?



Practice – Reasonableness and Applications of Systems**pp 383-411, 421-426**

Name _____ Date _____ Period _____

For each of the following: define the variables, write the system of equations and then solve using the 'best' method.

1. Coach P. made 4 shots in basketball practice this morning, no free throws. The combination of 3-pointers and 2-pointers totaled 11 points. How many baskets were 3-pointers?
2. The drama department sold 300 tickets for their last show. Adult tickets cost \$10 and student tickets cost \$5. If they sold \$2750 worth of tickets, what is a reasonable conclusion that can be made about the tickets?
 - A Only adults bought tickets
 - B More adults than students bought tickets
 - C More students than adults bought tickets
 - D The same number of adults and students bought tickets
3. At a restaurant the cost for a breakfast taco and a small glass of milk is \$2.10. The cost for 2 tacos and 3 small glasses of milk is \$5.15. Find the cost of one taco and one glass of milk.
4. The members of a new band want to spend no more than \$70 for at least 60 fliers to advertise their upcoming concert. The cost to produce a color flier is \$1.50 per flier. The cost to produce a black and white flier is \$0.75 per flier. If the members of the band want to get the maximum number of fliers made for \$70 using both color and black and white fliers, which of the following is a reasonable solution?
 - A The band can order 26 color fliers and 30 black and white fliers.
 - B The band can order 30 color fliers and 40 black and white fliers.
 - C The band can order 30 color fliers and 32 black and white fliers.
 - D The band can order 60 color fliers.
5. Cody likes to snack on pecans and almonds. Pecans sell for \$3 a pound and almonds sell for \$4 a pound. Cody wants to buy a mixture of nuts that weighs no more than 5 pounds, and he plans to spend at most \$18.00. Find three possible solutions to this situation.
6. Two complementary angles have measures of s and t . If t is 9 less than twice s , which system of linear equations can be used to determine the measure of each angle?

A $t + s = -9$ $t = 2s + 90$	C $t + s = 90$ $t = 2s - 9$
B $t - s = -9$ $t = 2s - 90$	D $t + s = 90$ $t = -2s - 9$

Algebra I - Unit 6: Topic 2 – Reasonableness and Applications of Systems

7. Marisela owns a clothing store that sells hats and shirts. All of the hats cost the same, x dollars, and all of the shirts cost the same, y dollars. The following customers came into the store and made purchases:

Frank bought two shirts and a hat for a total of \$17.00.

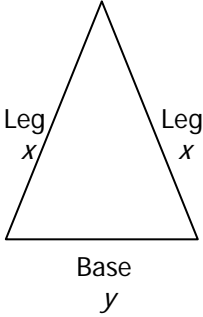
Allison bought four shirts and three hats for a total cost of \$37.00.

Judy bought six shirts and three hats for a total cost of \$51.00.

- A. Write three equations that represent these situations.
- B. Do Frank and Allison's purchases provide enough information to determine the price for each shirt and each hat? If so, find these prices and show your work. If not, explain why not.
- C. Explain why you can't use Frank and Judy's purchases to determine the price for each shirt and hat.
8. An isosceles triangle has legs that are each x inches long and a base that is y inches long. The perimeter of this triangle is 38 inches. The base is 8 inches shorter than the length of a leg. Which system of linear equations can be used to find the length of each of the 3 sides?
- A $2x + y = 38$
 $y = x - 8$

B $2x + 2y = 38$
 $y = x - 8$

C $2x + 2y = 38$
 $x = y - 8$

D $2x + y = 38$
 $x = y + 8$
- 

The diagram shows an isosceles triangle. The two slanted sides are labeled 'Leg' with a subscript x below each label. The horizontal bottom side is labeled 'Base' with a subscript y below it.
9. Hunter has a jar of 368 nickels and dimes. The total value of the coins is \$28.40. How many nickels and dimes does Hunter have?
10. Juan bought a total of 52 cans of Dr. Pepper and Sprite. There were three times as many cans of Dr. Pepper as Sprite. How many cans of Dr. Pepper did he buy?

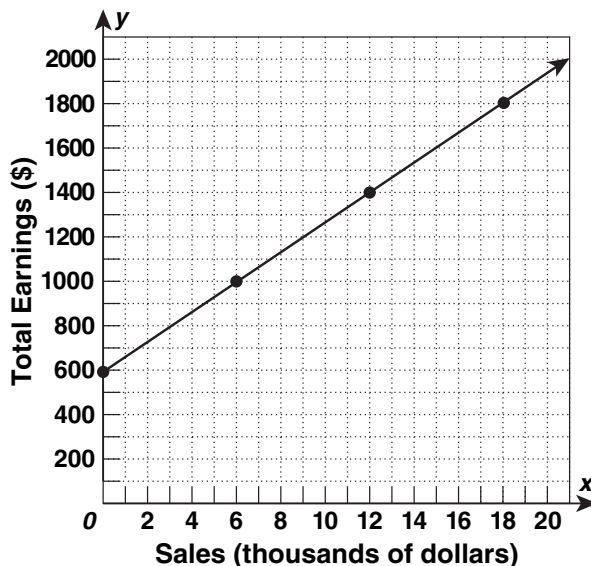
Test Preparation Practice

Algebra 1

A.2.C Interpret situations in term of given graphs or creates situations that fit given graphs.

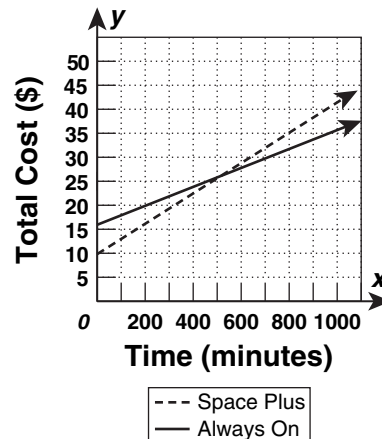
Solve each problem. Choose the best answer for each question and record your answer on the Student Answer Sheet. Figures are not drawn to scale

1. The Appliance Center is deciding whether to increase the commission that sales people make selling appliances. The graph shows the current relationship between the sales and total earnings for a salesperson. Which statement is true based on the graph?



- A Mr. Nicholas will earn \$600 if he sells \$4000 worth of appliances.
B Mrs. Nagel will not earn any money if she does not sell any appliances.
C Mr. Lancaster will earn \$1400 if he sells \$12,000 worth of appliances.
D Ms. Westin will earn \$1800 if she sells \$20,000 worth of appliances.

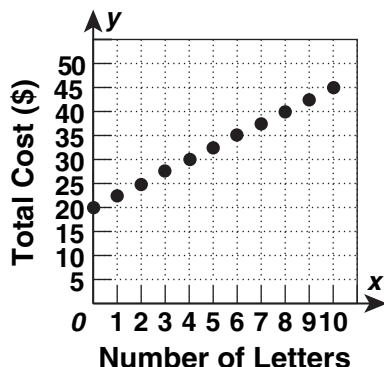
2. Martha is choosing between two cell phone providers, Space Plus and Always On. The graph shows the relationship between the total cost per month of each cell phone provider and the minutes of service used.



According to the graph, which of these statements is true?

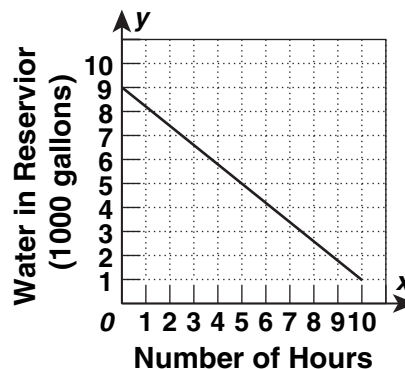
- F Always On would cost less than Space Plus if Martha used her cell phone less than 500 minutes per month.
G Space Plus would cost less than Always On if Martha used her cell phone less than 500 minutes per month.
H Always On would cost less than Space Plus if Martha used her cell phone for exactly 500 minutes per month.
J Space Plus would cost less than Always On if Martha used her cell phone more than 500 minutes per month.

3. The graph shows the fees that a tailor charges to sew a student's name on the back of a jacket. According to the graph which statement is true?

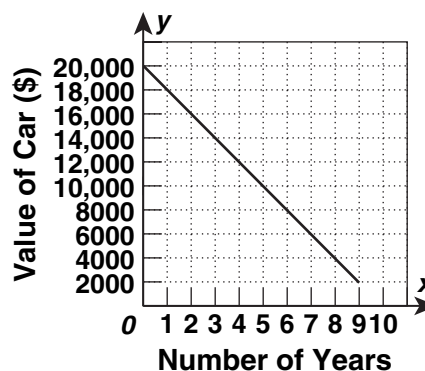


- A** Miranda has 7 letters in her last name, it would cost her more than \$40 to have her name put on the back of her jacket.
- B** If you have more than 10 letters in your name, the fee is less than \$45 for your name to be put on the back of your jacket.
- C** Roberto has 9 letters in his last name, it will cost him \$50 to have his name put on the back of his jacket.
- D** The initial fee for the tailor to put the name on the back of a jacket is \$20.

4. According to the graph which statement is true?



- F** The rate of water pumped to a field is 875 gallons per hour.
- G** After 4 hours 7000 gallons of water remain in the reservoir.
- H** After 7 hours less than 4000 gallons of water remain in the reservoir.
- J** The reservoir starts with more than 10,000 gallons of water.
5. The graph shows the decrease in value of a car over a period of 10 years.



Which is a reasonable conclusion about the value of this car during the time period shown on the graph?

- A** The cars value at 3 years is exactly twice its value at 8 years.
- B** The car depreciated \$2000 every year.
- C** The car depreciated \$4000 every 3 years.
- D** The cars value at 8 years is exactly half its value at 5 years.