Name: _____ **Class:** _____ **Date:** _____ **ID: A**

Algebra I - Chapter 6 Test 2 Review

¿Cuál par ordenado es una solución a la desigualdad?

____ 1. $y \geq 4x - 5$

a. (3, 4) b. (2, 1) c. (3, 0) d. (1, 1)

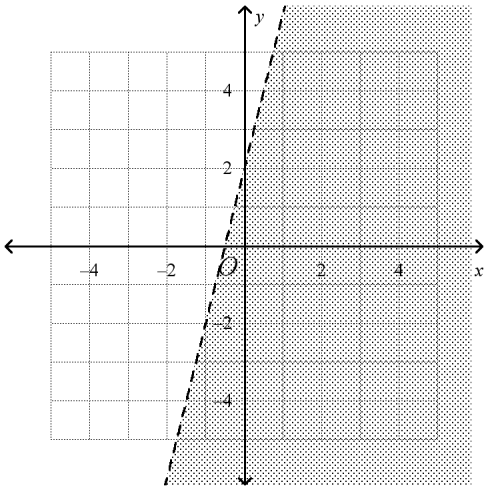
____ 2. $3y - 6 < 12x$

a. (0, 7) b. (4, –2) c. (–3, 8) d. (4, 18)

Dibuja una curva para representar la desigualdad.

____ 3. $y < 4x - 2$

a.



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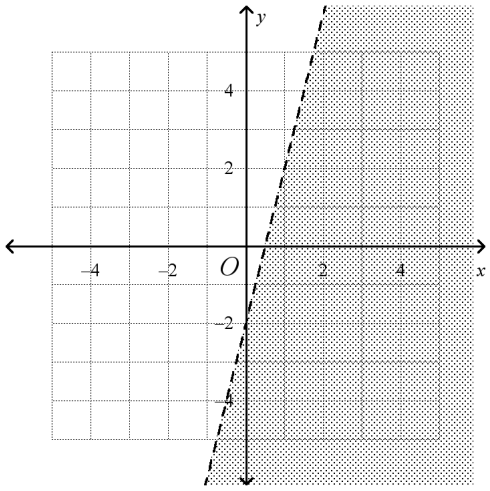

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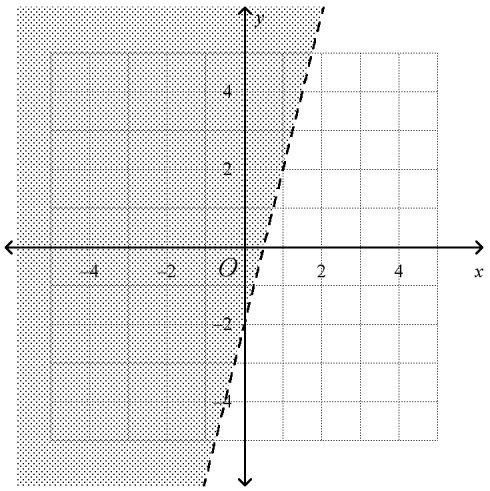
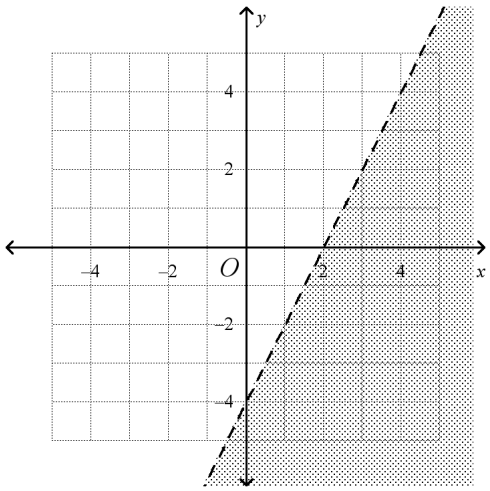
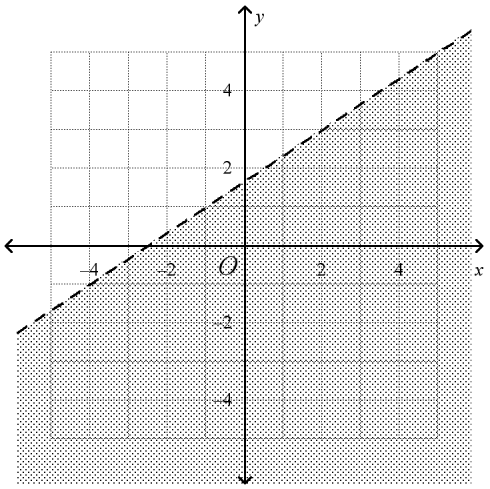


d.

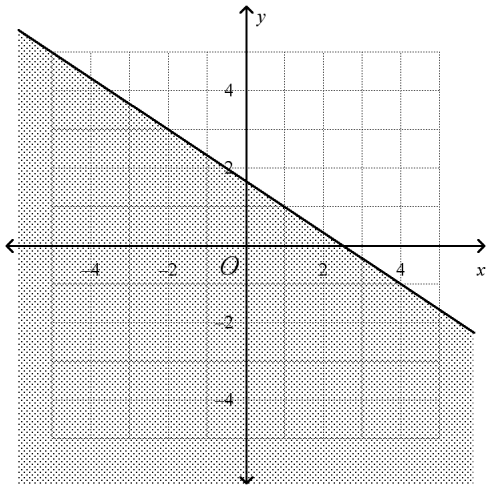


____ 4. $4x + 6y \geq 10$

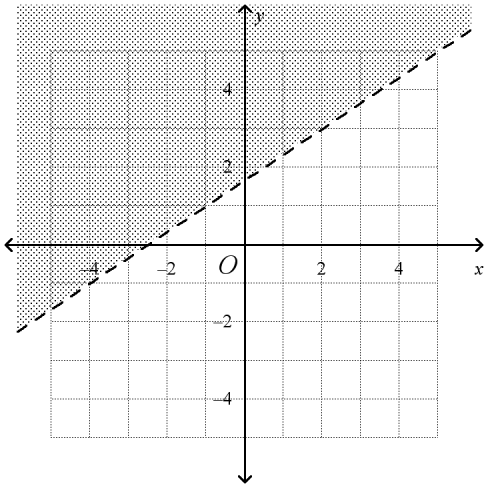
a.



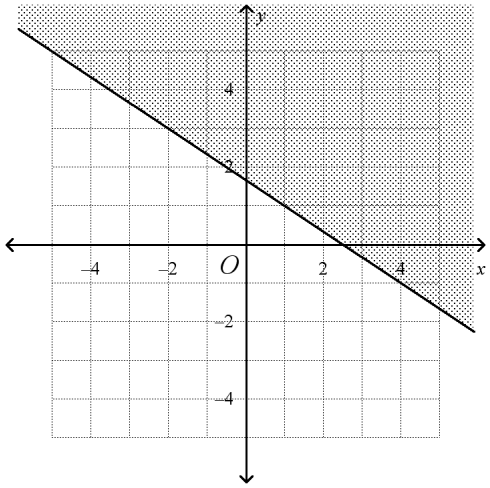
c.



b.

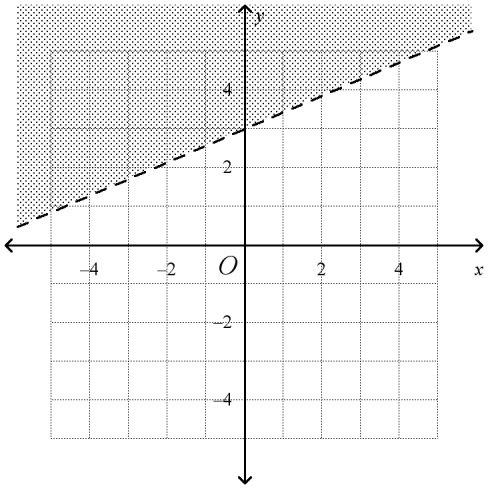


d.

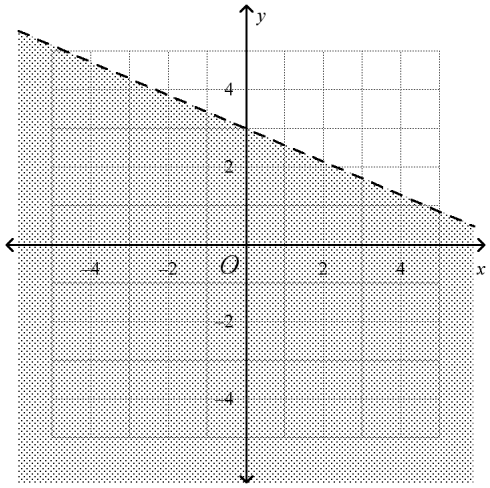


____ 5. $3x - 7y < -21$

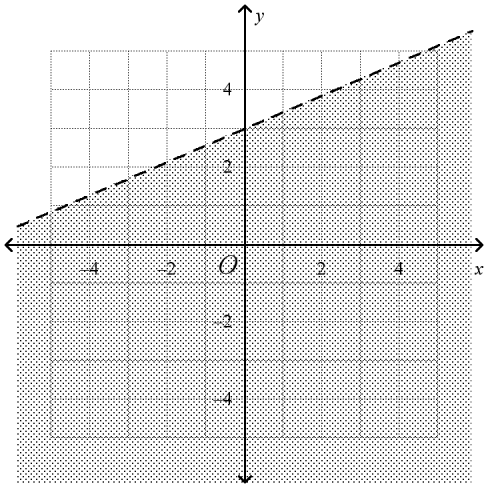
a.



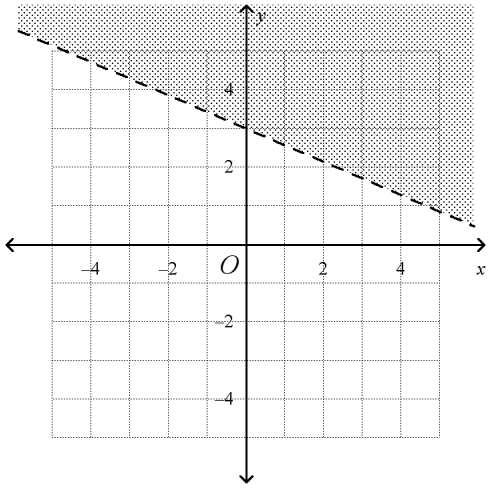
c.



b.

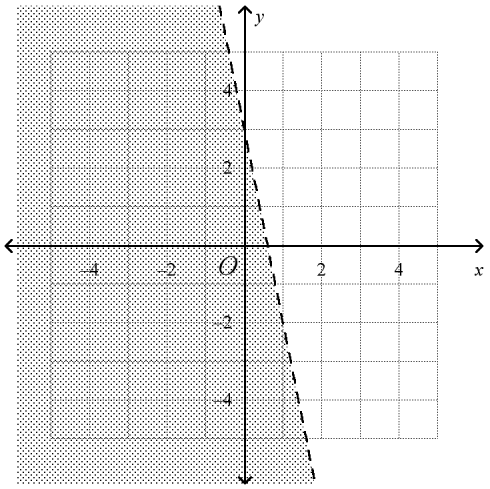


d.

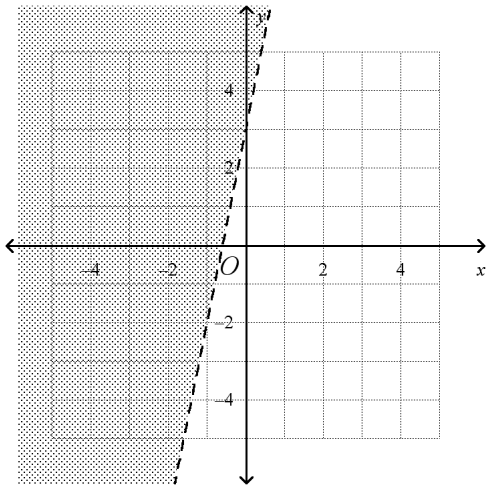


____ 6. $y > -5x + 3$

a.



c.



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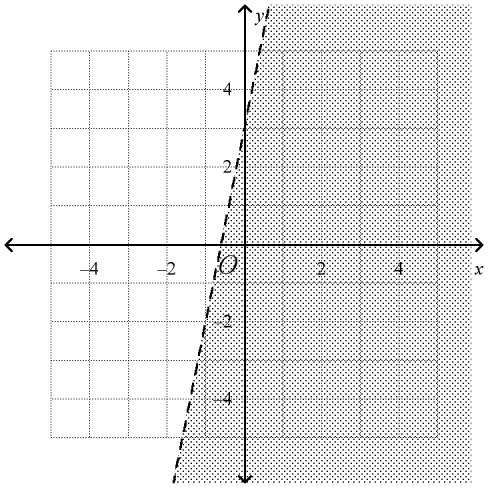
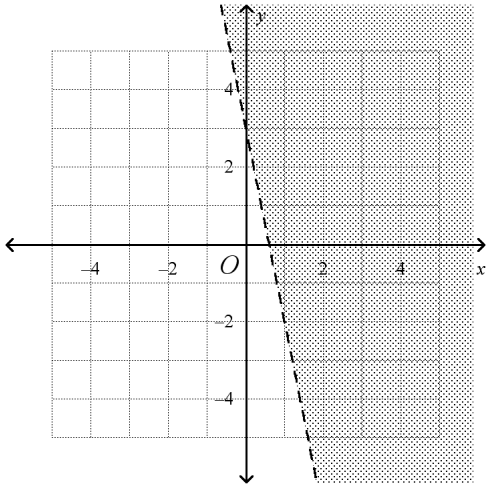


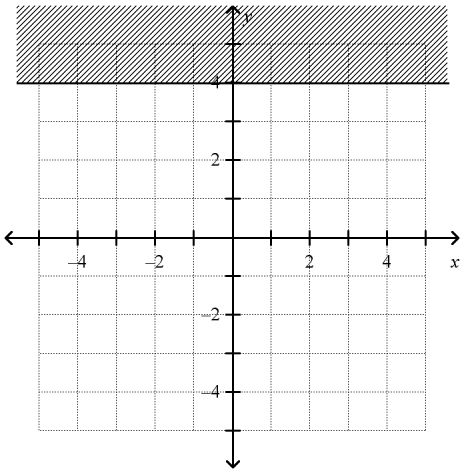
d.



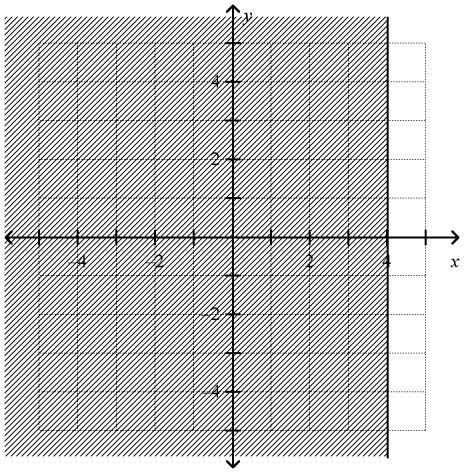
¿Qué es la gráfica de la desigualdad en el plano coordenado?

____ 7. $x \geq 4$

a.



b.



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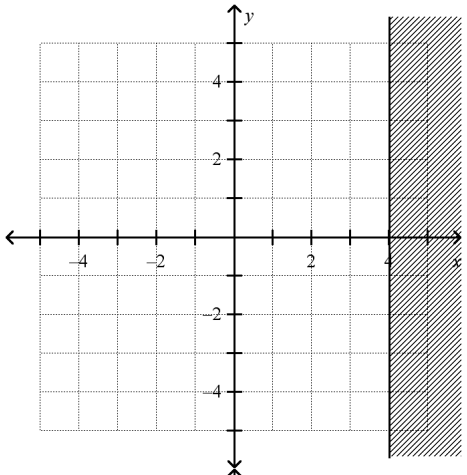
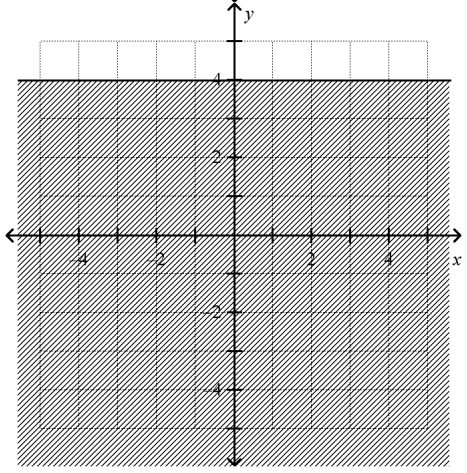
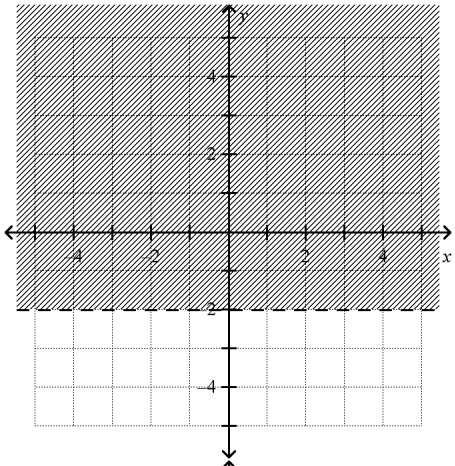


d.

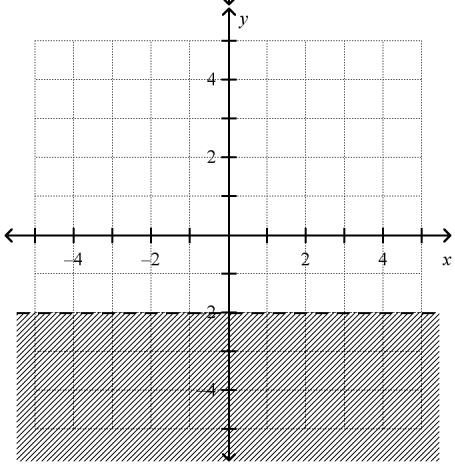


____ 8. $y < -2$

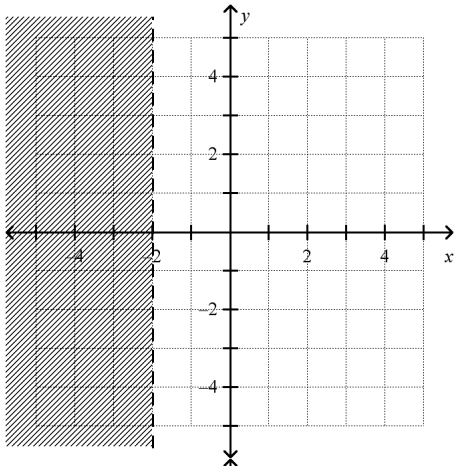
a.



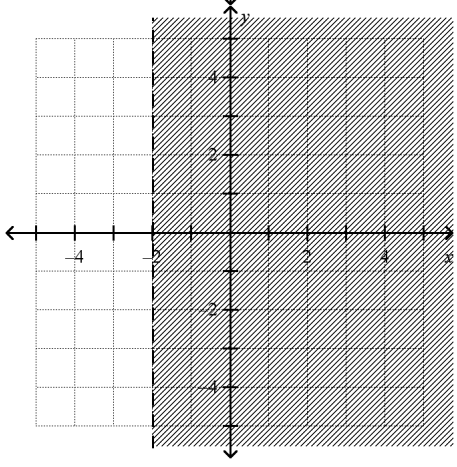
b.



c.

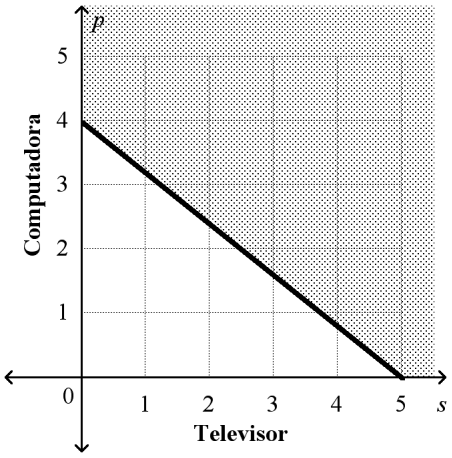


d.



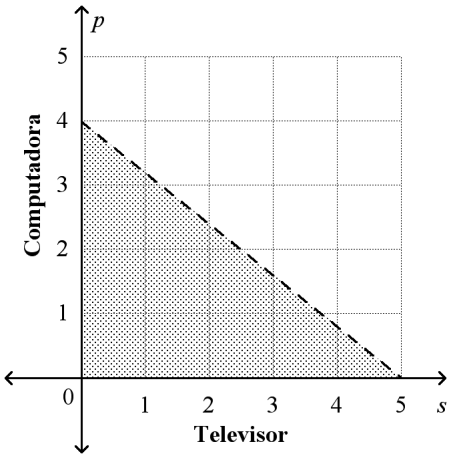
____ 9. Una tienda electrónica obtiene ganancias de $72 por cada televisor vendido y $90 por cada computadora vendida. El objetivo del jefe es ganar por lo menos $360 al día de la venta de televisores y computadoras. Escribe una desigualdad lineal y dibuja una curva para representar las soluciones.¿Cuáles son tres soluciones posibles?

a. $72s + 90p \geq 360$



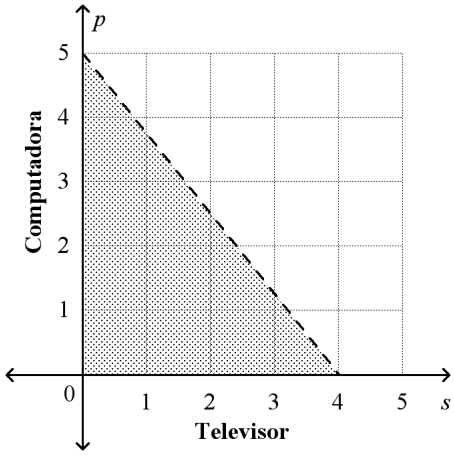
(5, 2), (3, 3), y (1, 4) son tres soluciones posibles.

b. $72s + 90p \leq 360$



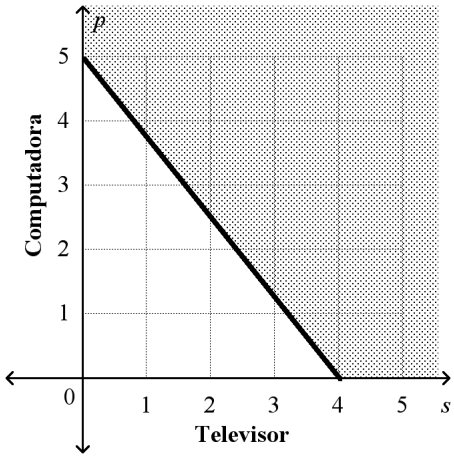
(4, 0), (2, 2), y (1, 1) son tres soluciones posibles.

c. $90s + 72p \leq 360$



(3, 1), (2, 2), y (1, 0) son tres soluciones posibles.

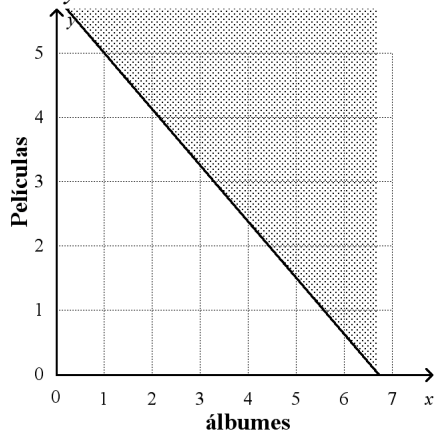
d. $90s + 72p \geq 360$



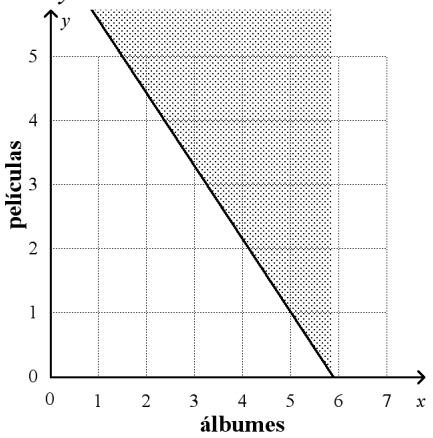
(4, 0), (3, 3), y (1, 4) son tres soluciones posibles.

____ 10. Tienes $47 para gastar en descargas de música y películas. Cada descarga de álbum cuesta $7 y cada descarga de película cuesta $8. Escribe y haz una gráfica de una desigualdad lineal que represente esta situación. Sea x el número de álbumes e y el número de películas.

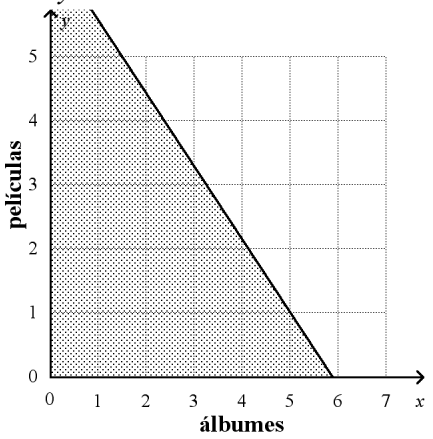
a. $7x + 8y \geq 47$



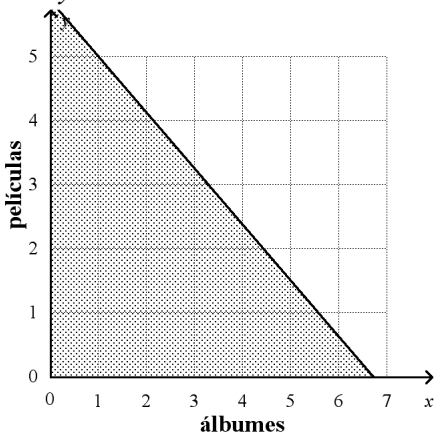
c. $8x + 7y \geq 47$



b. $8x + 7y \leq 47$



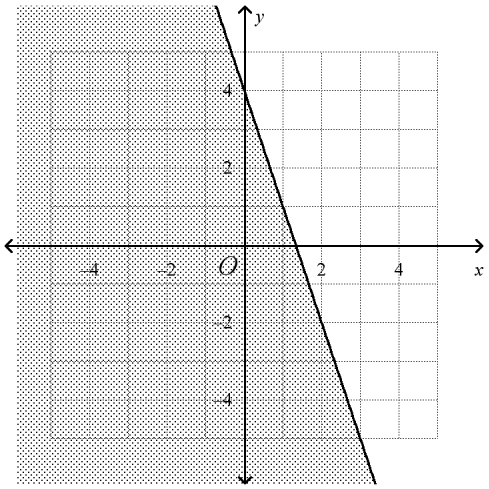
d. $7x + 8y \leq 47$



Name: _____ **ID: A**

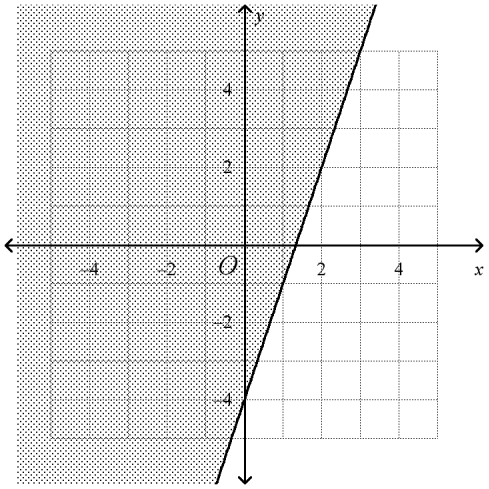
¿Qué desigualdad representa la gráfica?

____ 11.



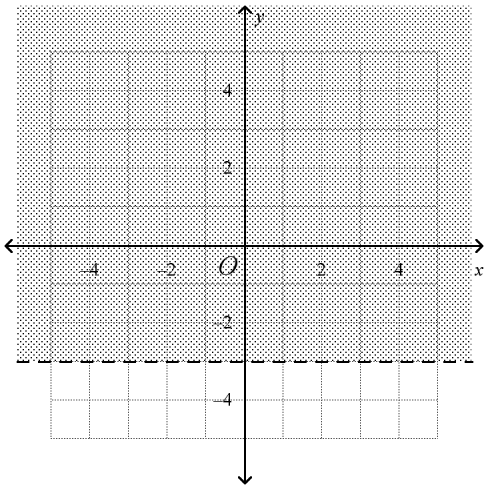
a. $y \geq -3x + 4$ b. $y \leq -3x + 4$ c. $y \geq -3x - 4$ d. $y \leq -3x - 4$

____ 12.



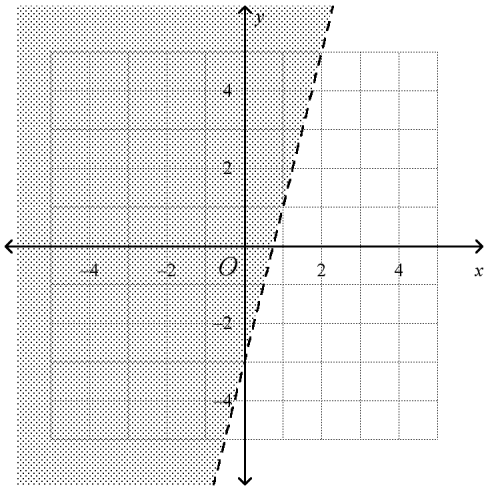
a. $y \leq 3x + 4$ b. $y \leq 3x - 4$ c. $y \geq 3x - 4$ d. $y \geq 3x + 4$

____ 13.



a. $x > -3$ b. $x \geq -3$ c. $y > -3$ d. $y \geq -3$

____ 14.



a. $y > 4x - 3$ b. $y \leq 4x + 3$ c. $y < 4x - 3$ d. $y \geq 4x + 3$

15. ¿Es el par ordenado una solución de $y > \frac{9}{14}x + 2$?

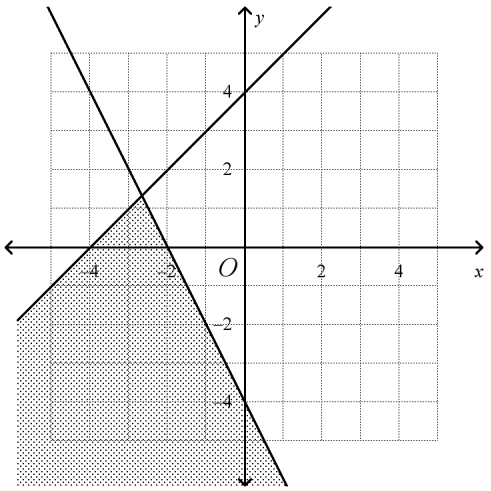
(4, 7)

16. Un médico tiene citas de 10 minutos y 20 minutos. El médico también trabaja en el hospital cuatro horas cada día de lunes a viernes. Supón que el médico limita estas actividades a un máximo de 30 horas semanales. Escribe una desigualdad lineal para representar el número de citas de 10 minutos y 20 minutos que puede tener y dibuja un gráfico para mostrar las soluciones. ¿Cuáles son las tres soluciones posibles?

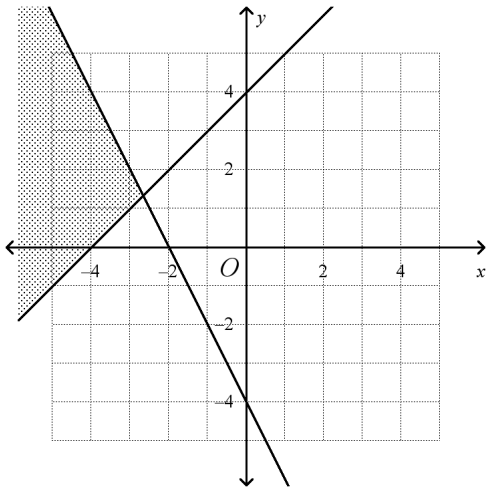
¿Cuál es la gráfica del sistema?

____ 17. $y \leq x + 4$
$2x + y \leq -4$

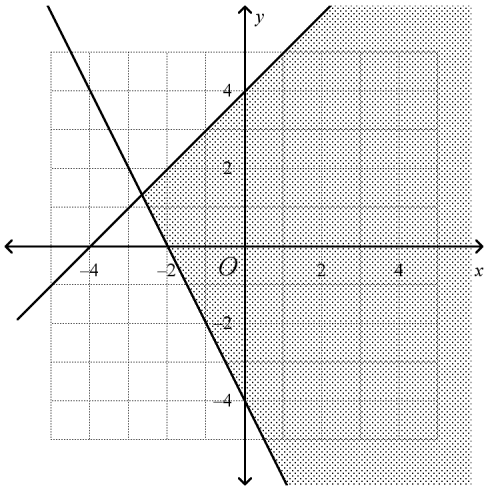
a.



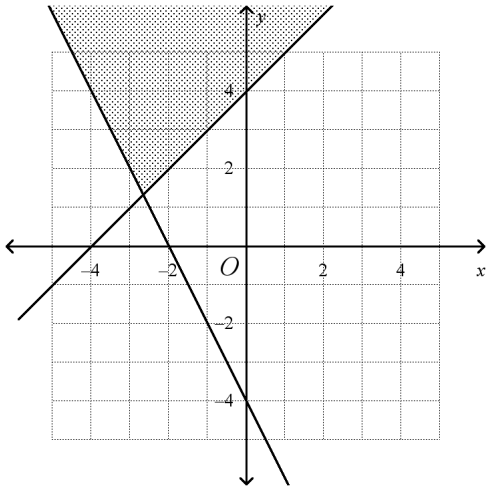
c.



b.

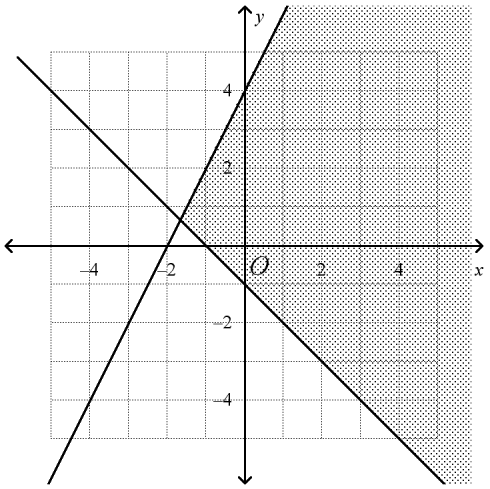


d.

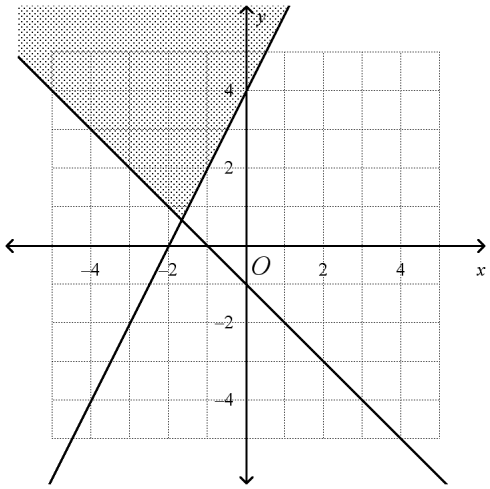


____ 18. $y \leq -x - 1$
$y \geq 2x + 4$

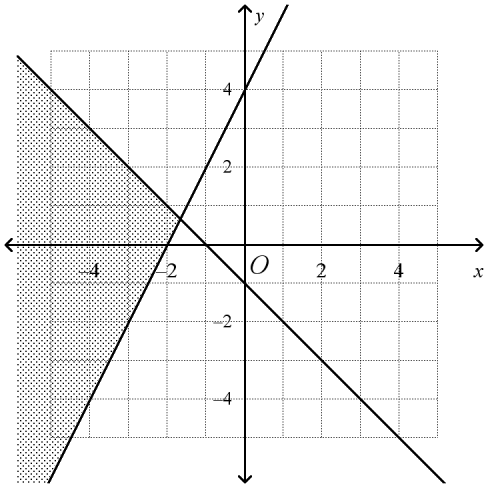
a.



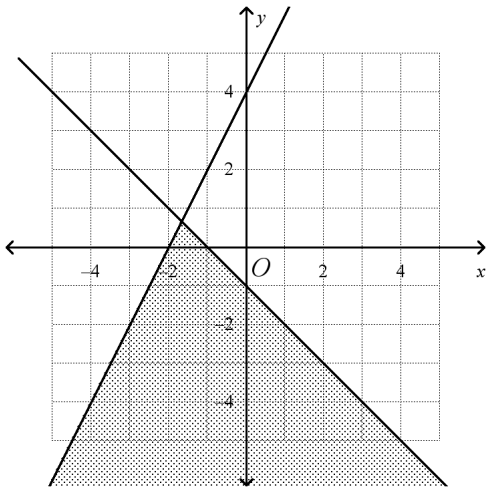
c.



b.

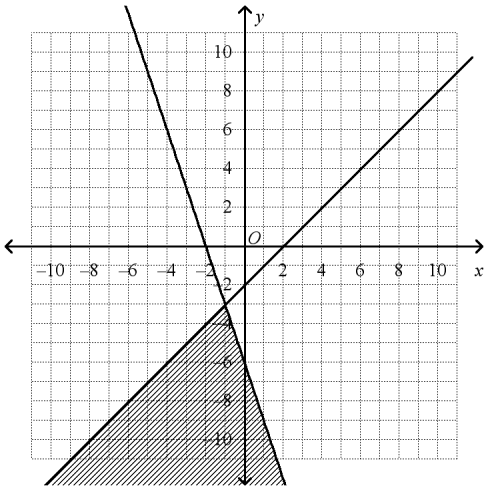


d.



¿Qué sistema de desigualdades está representado por la gráfica?

____ 19.



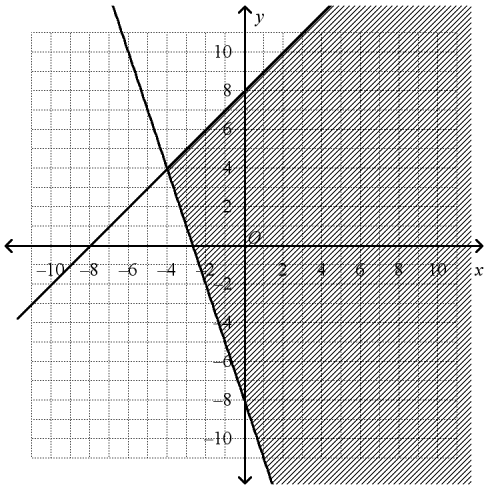
a. $y \geq x - 2$
$y \geq -3x - 6$

b. $y \leq x + 3$
$y \geq 2x - 6$

c. $y \leq x - 2$
$y \leq -3x - 6$

d. $y \geq x + 3$
$y \leq 2x - 6$

____ 20.



a. $y \geq x + 8$
$8x + y \geq -8$

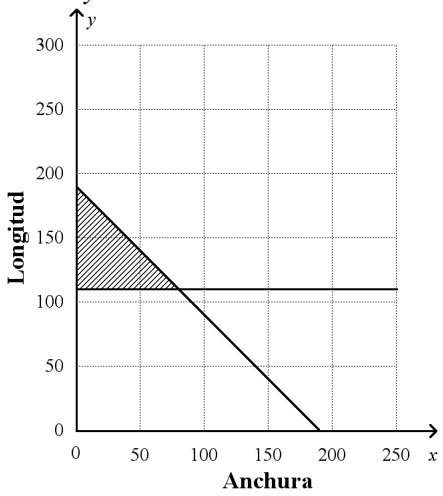
b. $y \leq x + 3$
$8x + y \leq -8$

c. $y \geq x + 8$
$3x + y \leq -8$

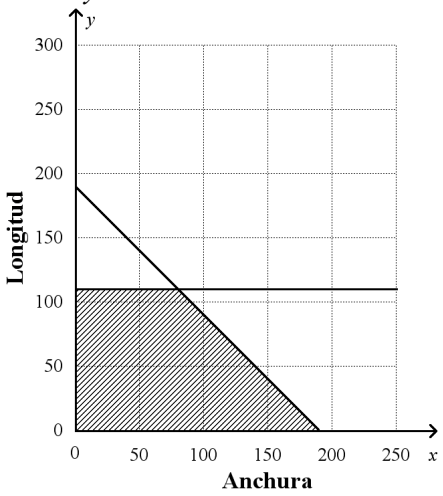
d. $y \leq x + 8$
$3x + y \geq -8$

____ 21. Un ciudadano quiere construir un cerco alrededor de un jardín en su pueblo. La longitud del jardín tiene que medir por lo menos 110 pies, y la distancia alrededor del jardín no puede medir más de 380 pies. Escribe un sistema de desigualdades que muestre las dimensiones posibles del jardín. Dibuja una gráfica para mostrar cada solución posible.

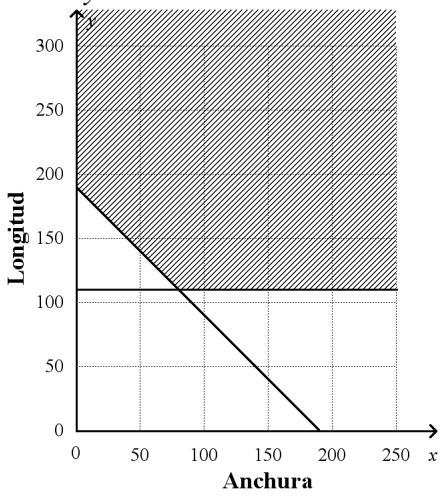
a. $y \geq 110$
$2x + 2y \leq 380$



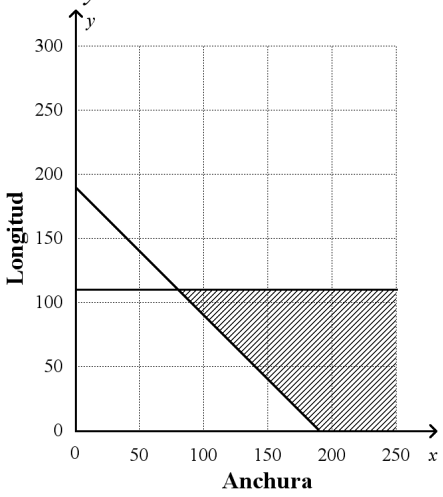
c. $y \leq 110$
$2x + 2y \leq 380$



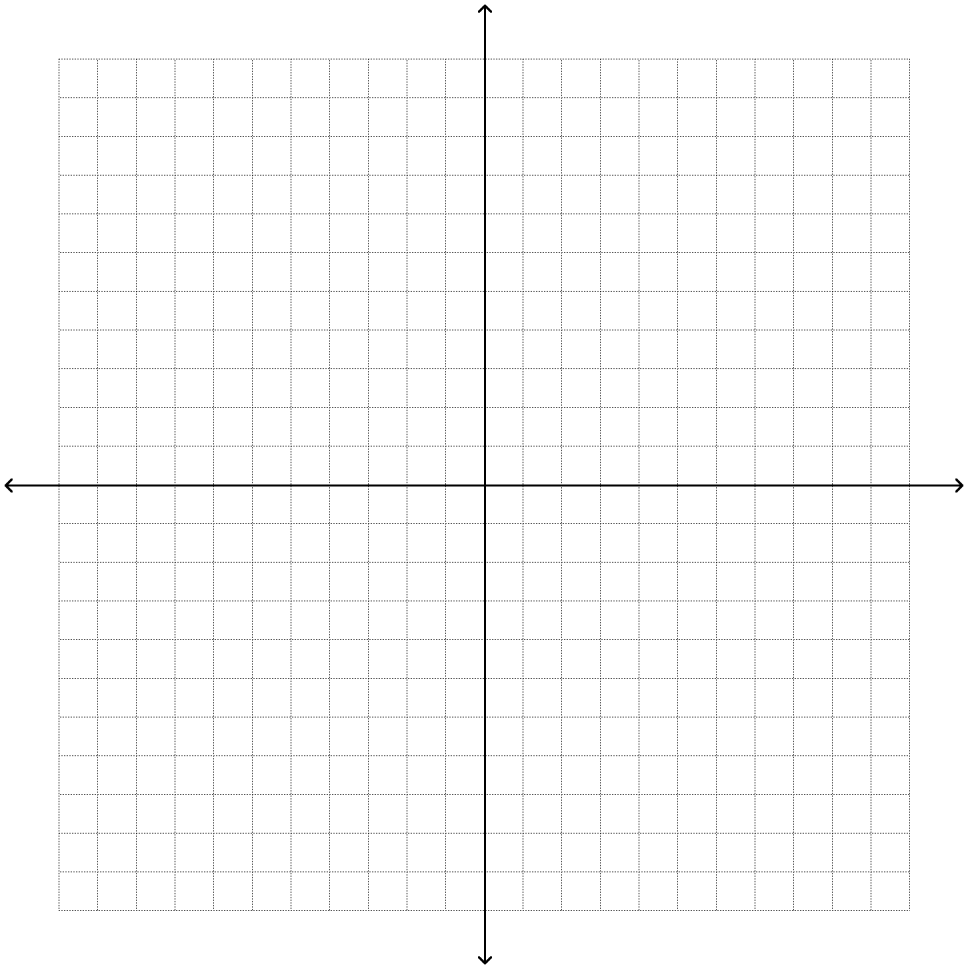
b. $y \geq 110$
$2x + 2y \geq 380$



d. $y \leq 110$
$2x + 2y \geq 380$



22. Tienes un cupón de regalo para una librería y vale $95. Cada libro de pasta blanda cuesta $10 y cada libro de tapa dura cuesta $17. Es necesario que gastes por lo menos $20 para poder utilizar tu cupón de regalo. Escribe y haz una gráfica de un sistema de desigualdades que muestre el número de cada tipo de libro que puedes comprar. Sea x el número de libros de pasta blanda e y el número de libros de tapa dura.



23. El restaurante de Amy quiere gastar un máximo de $60 este mes en café gourmet. Todos los cafés internacionales cuestan $8.50 el paquete y los cafés domésticos cuestan $6.00 el paquete. Amy quiere comprar unos cafés internacionales y por lo menos 3 paquetes de café doméstico. Escribe un sistema de desigualdades lineales para describir la situación. Haz una gráfica del sistema. Da una solución posible y describe lo que significa.

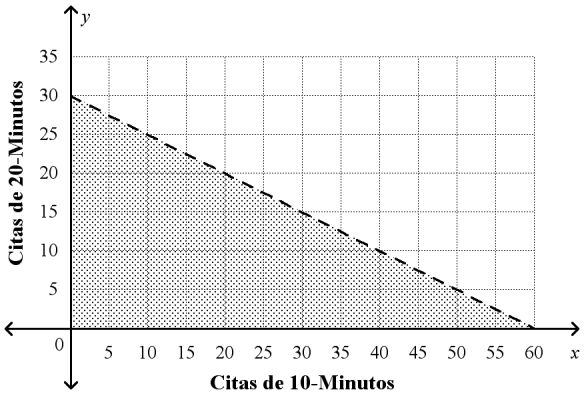
Algebra I - Chapter 6 Test 2 Review
Answer Section

1. ANS: D PTS: 1 DIF: L2 REF: 6-5 Linear Inequalities
   OBJ: 6-5.1 To graph linear inequalities in two variables NAT: CC A.CED.3| CC A.REI.12| A.4.d
   TOP: 6-5 Problem 1 Identifying Solutions of a Linear Inequality
   KEY: linear inequality | solution of an inequality
2. ANS: B PTS: 1 DIF: L3 REF: 6-5 Linear Inequalities
   OBJ: 6-5.1 To graph linear inequalities in two variables NAT: CC A.CED.3| CC A.REI.12| A.4.d
   TOP: 6-5 Problem 1 Identifying Solutions of a Linear Inequality
   KEY: linear inequality | solution of an inequality
3. ANS: C PTS: 1 DIF: L3 REF: 6-5 Linear Inequalities
   OBJ: 6-5.1 To graph linear inequalities in two variables NAT: CC A.CED.3| CC A.REI.12| A.4.d
   TOP: 6-5 Problem 2 Graphing an Inequality in Two Variables
   KEY: linear inequality
4. ANS: D PTS: 1 DIF: L4 REF: 6-5 Linear Inequalities
   OBJ: 6-5.1 To graph linear inequalities in two variables NAT: CC A.CED.3| CC A.REI.12| A.4.d
   TOP: 6-5 Problem 2 Graphing an Inequality in Two Variables
   KEY: linear inequality
5. ANS: A PTS: 1 DIF: L4 REF: 6-5 Linear Inequalities
   OBJ: 6-5.1 To graph linear inequalities in two variables NAT: CC A.CED.3| CC A.REI.12| A.4.d
   TOP: 6-5 Problem 2 Graphing an Inequality in Two Variables
   KEY: linear inequality
6. ANS: D PTS: 1 DIF: L3 REF: 6-5 Linear Inequalities
   OBJ: 6-5.1 To graph linear inequalities in two variables NAT: CC A.CED.3| CC A.REI.12| A.4.d
   TOP: 6-5 Problem 2 Graphing an Inequality in Two Variables
   KEY: linear inequality
7. ANS: C PTS: 1 DIF: L3 REF: 6-5 Linear Inequalities
   OBJ: 6-5.1 To graph linear inequalities in two variables NAT: CC A.CED.3| CC A.REI.12| A.4.d
   TOP: 6-5 Problem 3 Graphing a Linear Inequality in One Variable
   KEY: linear inequality
8. ANS: B PTS: 1 DIF: L3 REF: 6-5 Linear Inequalities
   OBJ: 6-5.1 To graph linear inequalities in two variables NAT: CC A.CED.3| CC A.REI.12| A.4.d
   TOP: 6-5 Problem 3 Graphing a Linear Inequality in One Variable
   KEY: linear inequality
9. ANS: A PTS: 1 DIF: L3 REF: 6-5 Linear Inequalities
   OBJ: 6-5.2 To use linear inequalities when modeling real-world situations
   NAT: CC A.CED.3| CC A.REI.12| A.4.d TOP: 6-5 Problem 4 Rewriting to Graph an Inequality
   KEY: linear inequality | constraints | viable solutions
10. ANS: D PTS: 1 DIF: L3 REF: 6-5 Linear Inequalities
    OBJ: 6-5.2 To use linear inequalities when modeling real-world situations
    NAT: CC A.CED.3| CC A.REI.12| A.4.d TOP: 6-5 Problem 4 Rewriting to Graph an Inequality
    KEY: linear inequality | constraints | viable solutions
11. ANS: B PTS: 1 DIF: L3 REF: 6-5 Linear Inequalities
    OBJ: 6-5.1 To graph linear inequalities in two variables NAT: CC A.CED.3| CC A.REI.12| A.4.d
    TOP: 6-5 Problem 5 Writing an Inequality From a Graph KEY: linear inequality

12. ANS: C PTS: 1 DIF: L3 REF: 6-5 Linear Inequalities
OBJ: 6-5.1 To graph linear inequalities in two variables NAT: CC A.CED.3| CC A.REI.12| A.4.d
TOP: 6-5 Problem 5 Writing an Inequality From a Graph KEY: linear inequality
13. ANS: C PTS: 1 DIF: L3 REF: 6-5 Linear Inequalities
OBJ: 6-5.1 To graph linear inequalities in two variables NAT: CC A.CED.3| CC A.REI.12| A.4.d
TOP: 6-5 Problem 5 Writing an Inequality From a Graph KEY: linear inequality
14. ANS: A PTS: 1 DIF: L3 REF: 6-5 Linear Inequalities
OBJ: 6-5.1 To graph linear inequalities in two variables NAT: CC A.CED.3| CC A.REI.12| A.4.d
TOP: 6-5 Problem 5 Writing an Inequality From a Graph KEY: linear inequality
15. ANS:

Yes, $\frac{9}{14}(4) + 2 < 7$.

PTS: 1 DIF: L3 REF: 6-5 Linear Inequalities
OBJ: 6-5.1 To graph linear inequalities in two variables NAT: CC A.CED.3| CC A.REI.12| A.4.d
TOP: 6-5 Problem 1 Identifying Solutions of a Linear Inequality
KEY: linear inequality | solution of an inequality
16. ANS:
$10x + 20y \leq 600$



(20, 5), (10, 20) y (35, 10) son las tres posibles soluciones para este problema.

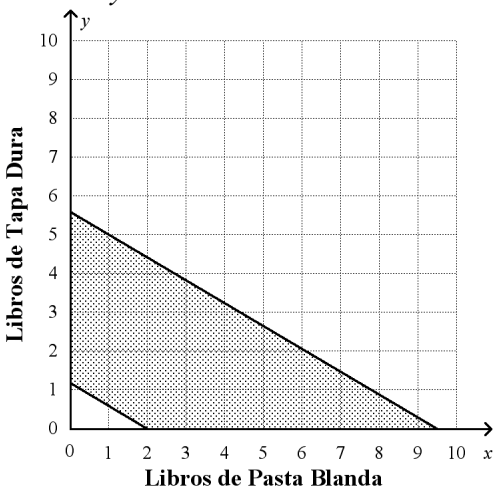
PTS: 1 DIF: L4 REF: 6-5 Linear Inequalities
OBJ: 6-5.2 To use linear inequalities when modeling real-world situations
NAT: CC A.CED.3| CC A.REI.12| A.4.d TOP: 6-5 Problem 4 Rewriting to Graph an Inequality
KEY: linear inequality | solution of an inequality | constraints | viable solutions
17. ANS: A PTS: 1 DIF: L4 REF: 6-6 Systems of Linear Inequalities
OBJ: 6-6.1 To solve systems of linear inequalities by graphing
NAT: CC A.REI.12| A.4.d TOP: 6-6 Problem 1 Graphing a System of Inequalities
KEY: system of linear inequalities
18. ANS: B PTS: 1 DIF: L3 REF: 6-6 Systems of Linear Inequalities
OBJ: 6-6.1 To solve systems of linear inequalities by graphing
NAT: CC A.REI.12| A.4.d TOP: 6-6 Problem 1 Graphing a System of Inequalities
KEY: system of linear inequalities

19. ANS: C PTS: 1 DIF: L3 REF: 6-6 Systems of Linear Inequalities
OBJ: 6-6.1 To solve systems of linear inequalities by graphing
NAT: CC A.REI.12| A.4.d
TOP: 6-6 Problem 2 Writing a System of Inequalities From a Graph
KEY: system of linear inequalities

20. ANS: D PTS: 1 DIF: L3 REF: 6-6 Systems of Linear Inequalities
OBJ: 6-6.1 To solve systems of linear inequalities by graphing
NAT: CC A.REI.12| A.4.d
TOP: 6-6 Problem 2 Writing a System of Inequalities From a Graph
KEY: system of linear inequalities

21. ANS: A PTS: 1 DIF: L3 REF: 6-6 Systems of Linear Inequalities
OBJ: 6-6.2 To model real-world situations using systems of linear inequalities
NAT: CC A.REI.12| A.4.d TOP: 6-6 Problem 3 Using a System of Inequalities
KEY: system of linear inequalities | solution of a system of linear inequalities

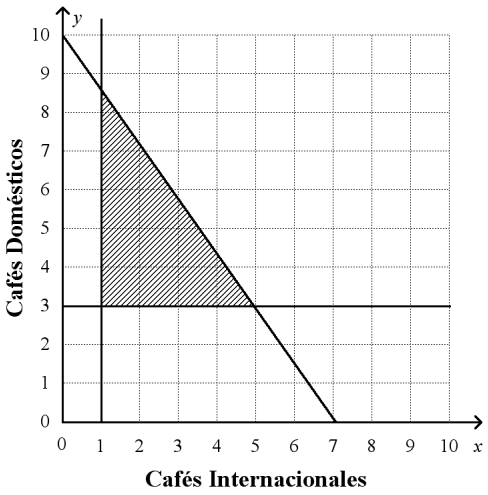
22. ANS:
$10x + 17y \geq 20$
$10x + 17y \leq 95$



PTS: 1 DIF: L3 REF: 6-6 Systems of Linear Inequalities
OBJ: 6-6.2 To model real-world situations using systems of linear inequalities
NAT: CC A.REI.12| A.4.d TOP: 6-6 Problem 3 Using a System of Inequalities
KEY: solution of a system of linear inequalities | system of linear inequalities

23. ANS:
Representar con x el número de paquetes de café internacional y representar con y el número de paquetes de café doméstico, que Amy puede comprar.

$8.5x + 6y \leq 60$
$x \geq 1$
$y \geq 3$



Las respuestas pueden variar. Muestra: (2, 7); Amy puede comprar 2 paquetes de café internacional y 7 paquetes de café doméstico por $59.

PTS: 1 DIF: L3 REF: 6-6 Systems of Linear Inequalities
OBJ: 6-6.2 To model real-world situations using systems of linear inequalities
NAT: CC A.REI.12| A.4.d TOP: 6-6 Problem 3 Using a System of Inequalities
KEY: solution of a system of linear inequalities | system of linear inequalities | constraints | viable solutions