Systems of Equations and Linear Inequalities

Annabelle Gonzaga
Anna Tuazon

Table of Contents:

Solving Systems of Linear Equations
- Graphical Method 2
- Substitution Method 10
- Elimination Method 16
- Art Project 24

Graphing Linear Inequalities 26
- Art Project 43

Solving Systems of Linear Inequalities 45

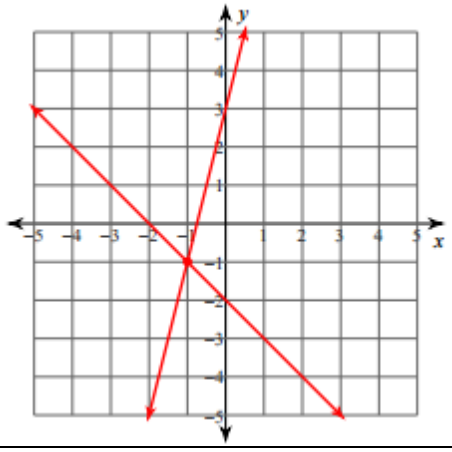
Finding Solutions to Linear-Quadratic Systems
- Graphical 54
- Algebraic 70

Solving Systems of Linear Equations (Graphical Method)

Name: Date:

The graphical solution to a system of linear equations is where the equations 'meet' or intersect.

1)



a. (1, –1)

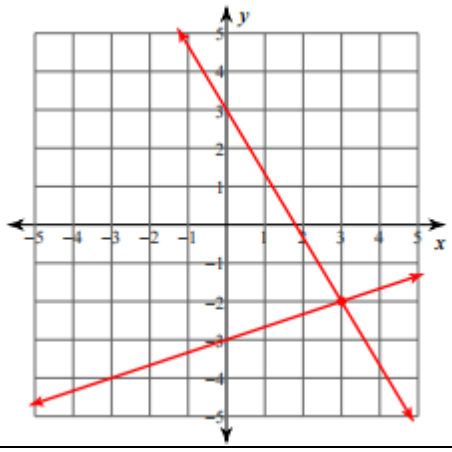
b. (–1, 1)

c. (1, 1)

d. (–1, –1)

e. no solution

2)



a. (3, –2)

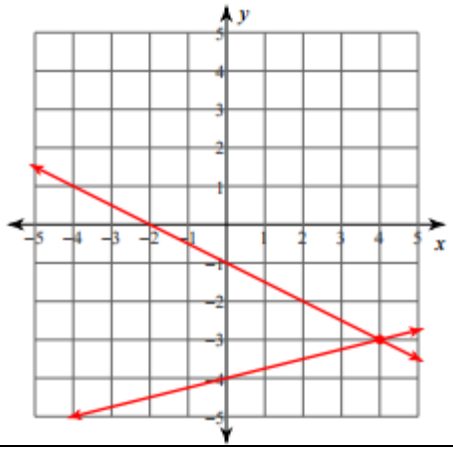
b. (–2, 3)

c. (–3, 2)

d. (2, –3)

e. no solution

3)



a. (3, –4)

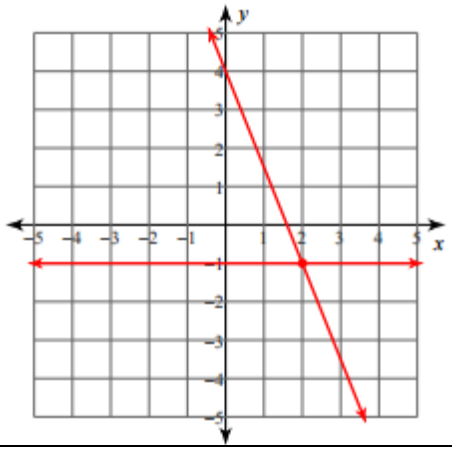
b. (–3, 4)

c. (4, –3)

d. (–4, 3)

e. no solution

4)



a. (–1, 2)

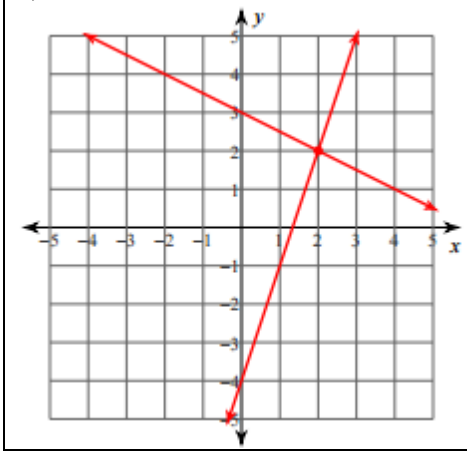
b. (–1, –1)

c. (2, –1)

d. (–2, –1)

e. no solution

5)



a. (2, 2)

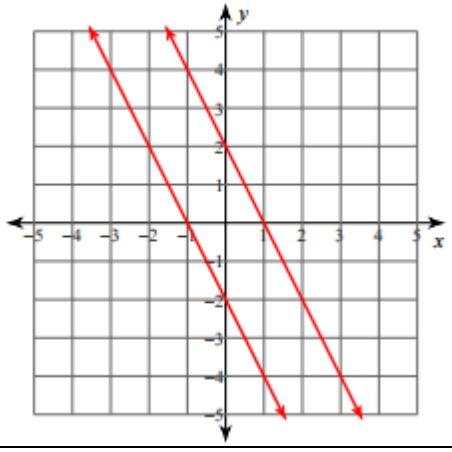
b. (–2, 2)

c. (2, –2)

d. (–4, 3)

e. no solution

6)



a. (2, 1)

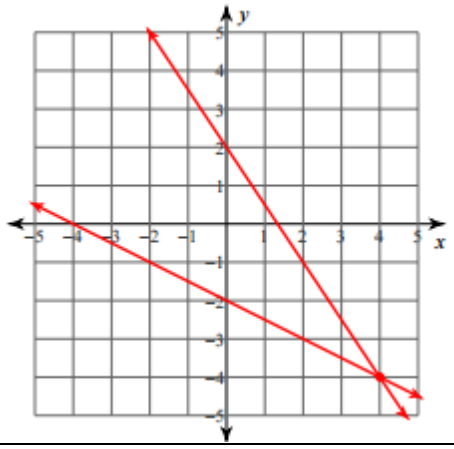
b. (1, 2)

c. (1, 2)

d. (–1, –2)

e. no solution

7)



a. (–4, 4)

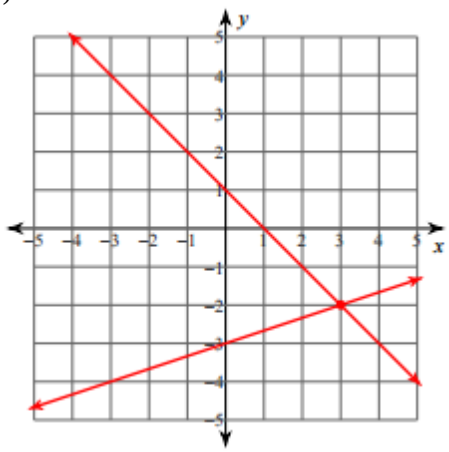
b. (–4, –4)

c. (4, –4)

d. (4, 4)

e. no solution

8)



a. (–2, 3)

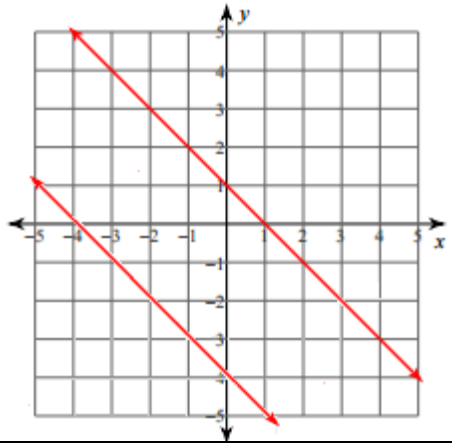
b. (3, –2)

c. (2, –3)

d. (–3, 2)

e. no solution

9)



a. (1, –1)

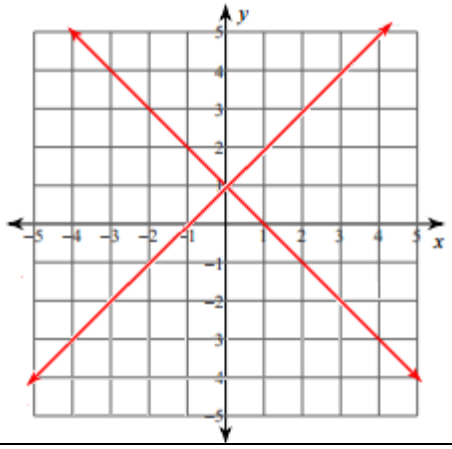
b. (–1, 1)

c. (1, 1)

d. (–1, –1)

e. no solution

10)



a. (1, 0)

b. (0, 1)

c. (0, –1)

d. (–1, 0)

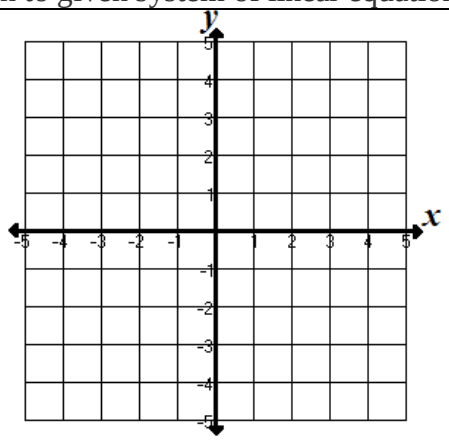
e. no solution

Find the solution to given system of linear equations.

11)

$y = \frac{5}{2}x - 4$

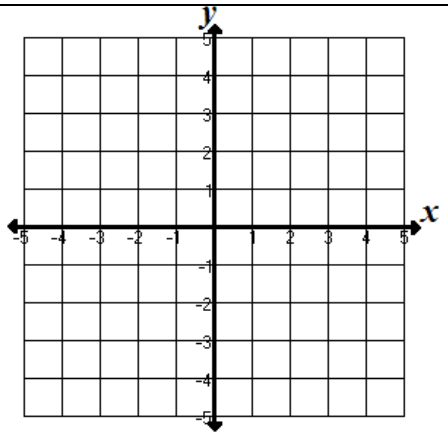
$y = -x + 3$



12)

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

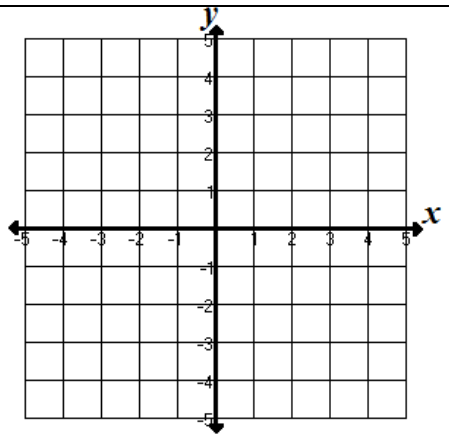
$x = -4$



13)

$y = \frac{1}{2}x + 5$

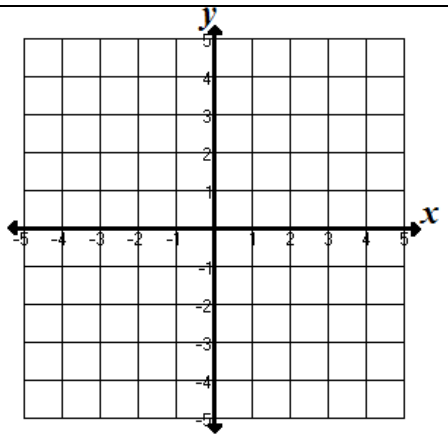
$y = -\frac{5}{2}x - 1$



14)

$y = \frac{2}{3}x - 2$

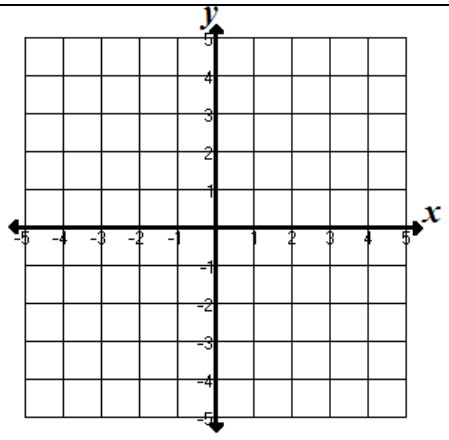
$x = -\frac{5}{3}x + 5$



15)

$y = -\frac{1}{3}x + 1$

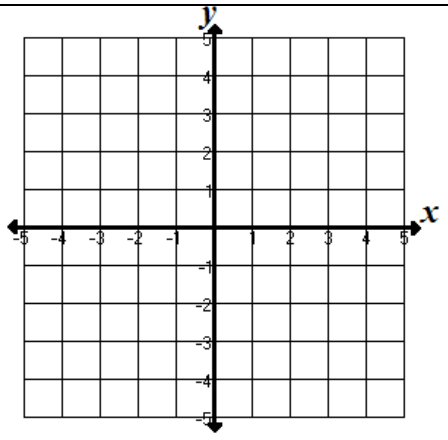
$x = -3$



16)

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

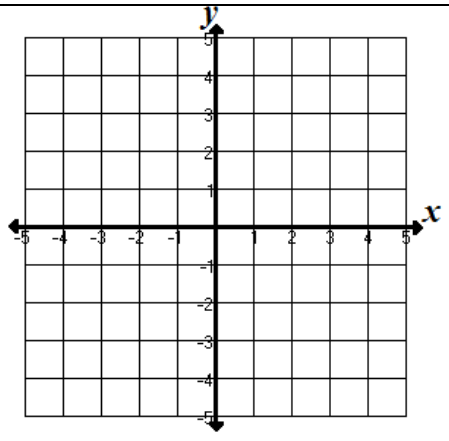
$y = -\frac{1}{2}x + 2$



17)

$y = \frac{7}{4}x - 3$

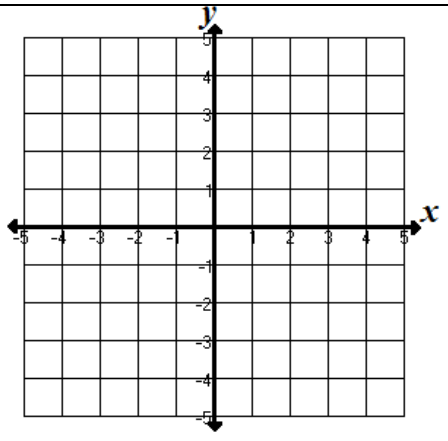
$y = 4$



18)

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

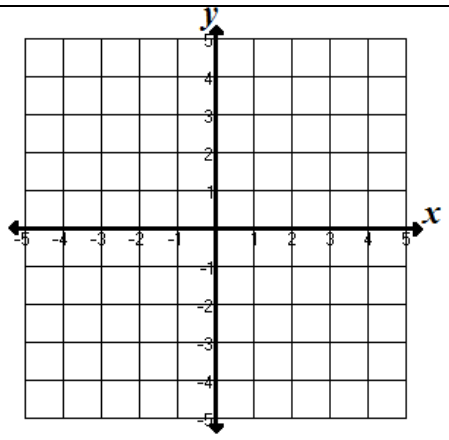
$y = \frac{1}{2}x - 3$



19)

$y = x - 4$

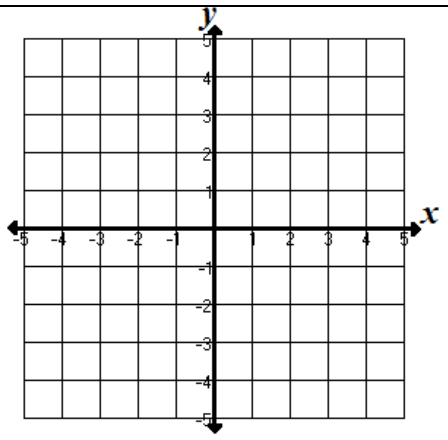
$y = -\frac{1}{2}x - 1$



20)

$y = 2x + 4$

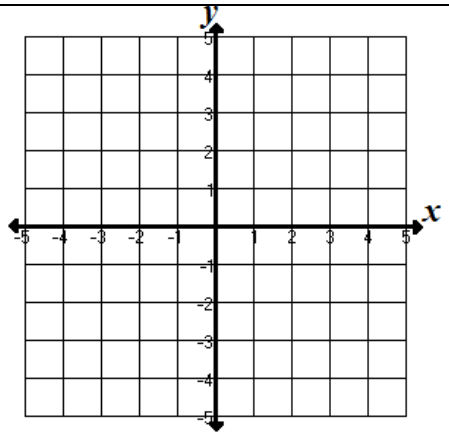
$y = -3x - 1$



21)

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

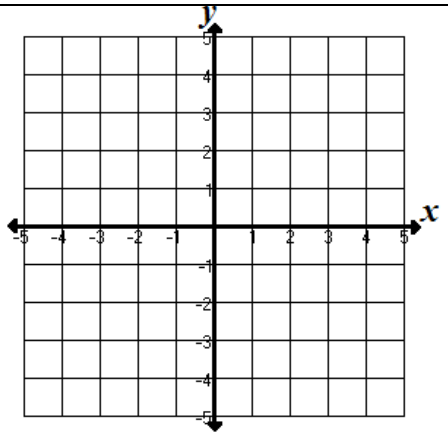
$y = -x - 2$



22)

$y = -\frac{3}{2}x - 2$

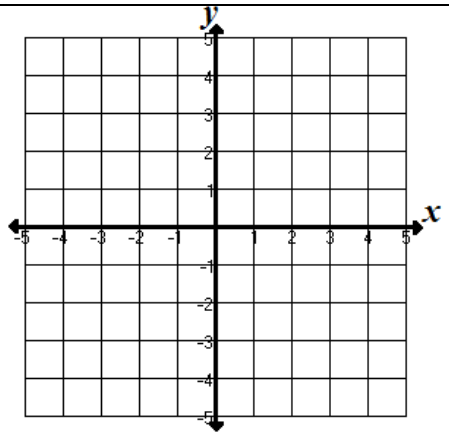
$y = -3x + 1$



23)

$y = \frac{2}{3}x - 3$

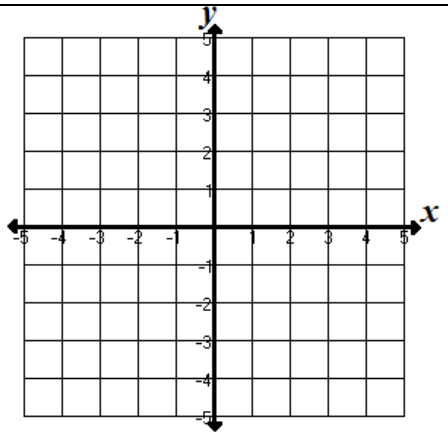
$y = \frac{4}{3}x - 5$



24)

$y = -1$

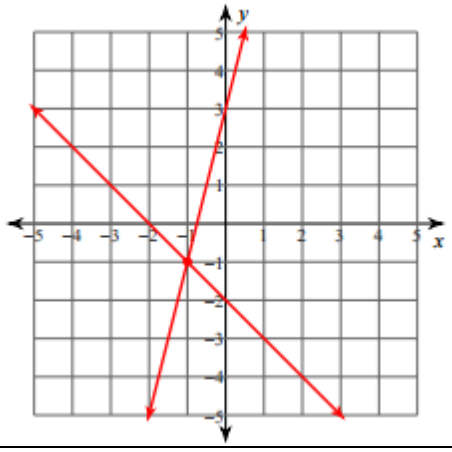
$y = 2x - 3$



Name: ANSWER KEY Date:

The graphical solution to a system of linear equations is where the equations 'meet' or intersect.

1)



a. (1, –1)

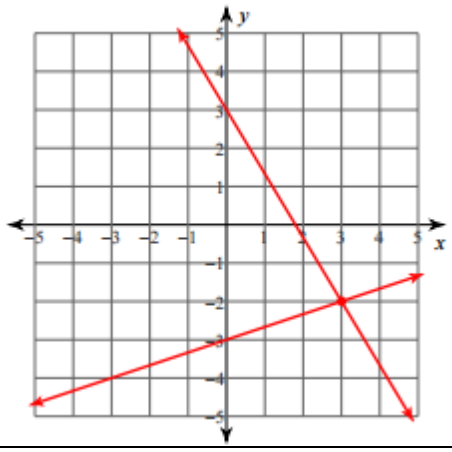
b. (–1, 1)

c. (1, 1)

d. (–1, –1)

e. no solution

2)



a. (3, –2)

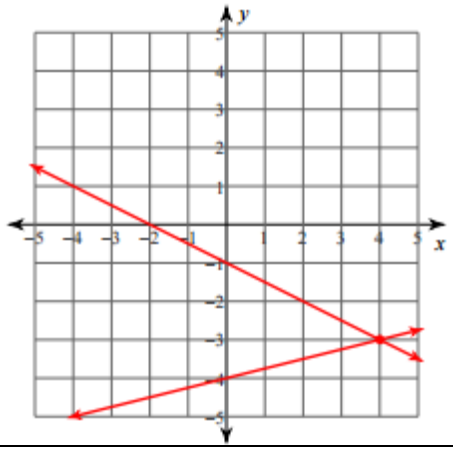
b. (–2, 3)

c. (–3, 2)

d. (2, –3)

e. no solution

3)



a. (3, –4)

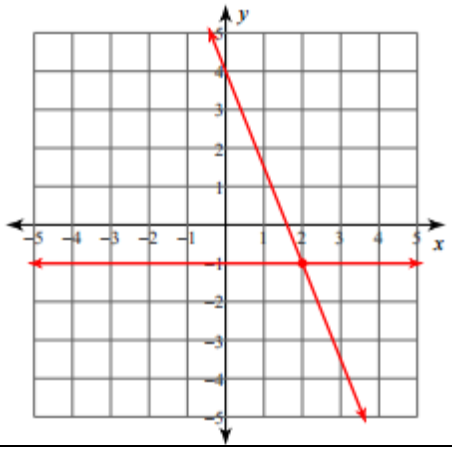
b. (–3, 4)

c. (4, –3)

d. (–4, 3)

e. no solution

4)



a. (–1, 2)

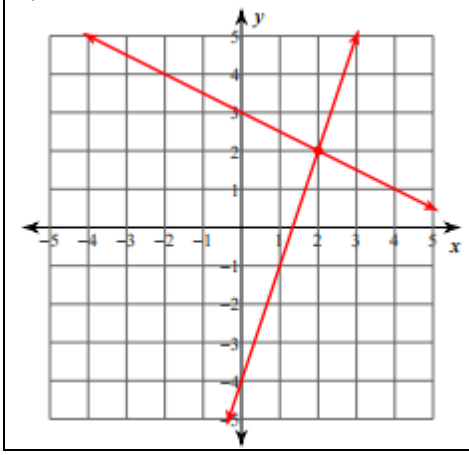
b. (–1, –1)

c. (2, –1)

d. (–2, –1)

e. no solution

5)



a. (2, 2)

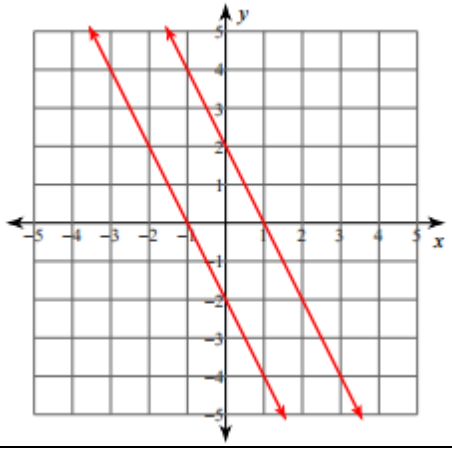
b. (–2, 2)

c. (2, –2)

d. (–4, 3)

e. no solution

6)



a. (2, 1)

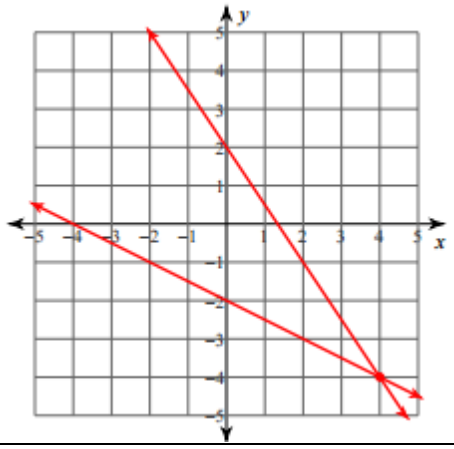
b. (1, 2)

c. (1, 2)

d. (–1, –2)

e. no solution

7)



a. (–4, 4)

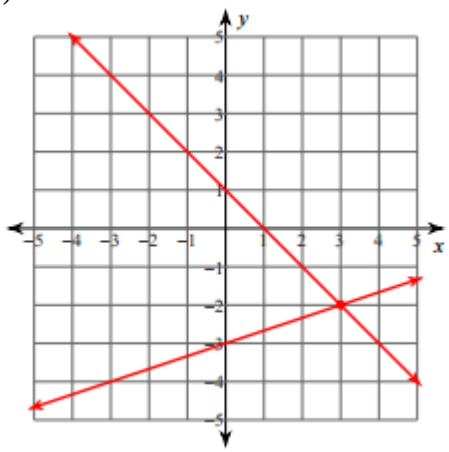
b. (–4, –4)

c. (4, –4)

d. (4, 4)

e. no solution

8)



a. (–2, 3)

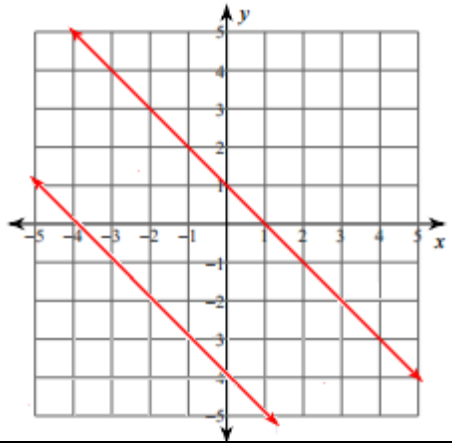
b. (3, –2)

c. (2, –3)

d. (–3, 2)

e. no solution

9)



a. (1, –1)

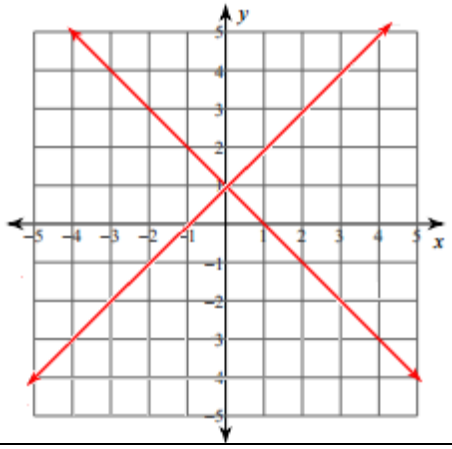
b. (–1, 1)

c. (1, 1)

d. (–1, –1)

e. no solution

10)



a. (1, 0)

b. (0, 1)

c. (0, –1)

d. (–1, 0)

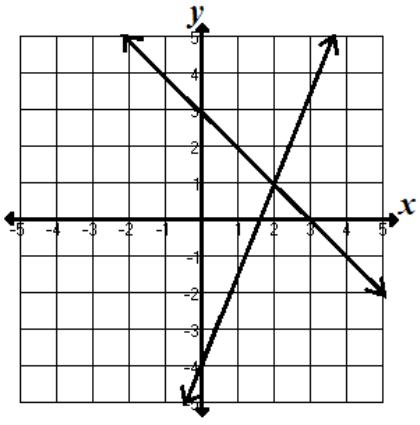
e. no solution

Find the solution to given system of linear equations.

11)

$y = \frac{5}{2}x - 4$

$y = -x + 3$

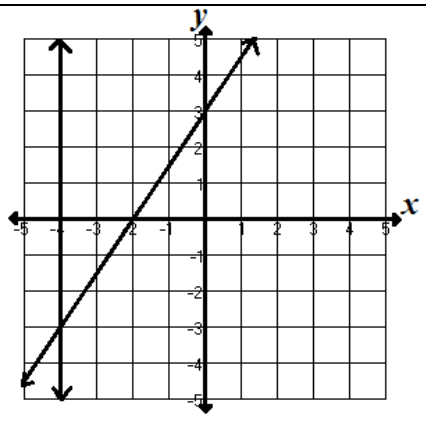


(2, 1)

12)

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

$x = -4$

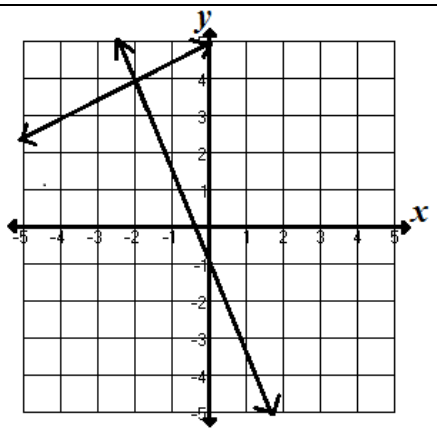


(–4, –3)

13)

$y = \frac{1}{2}x + 5$

$y = -\frac{5}{2}x - 1$

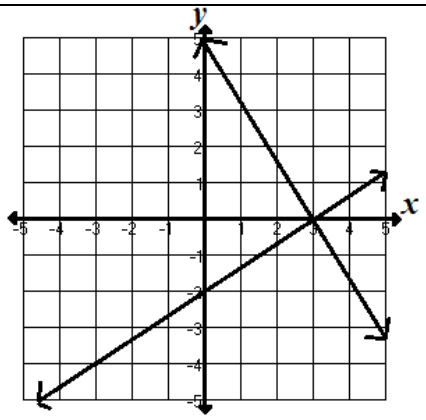


(–2, 4)

14)

$y = \frac{2}{3}x - 2$

$x = -\frac{5}{3}x + 5$

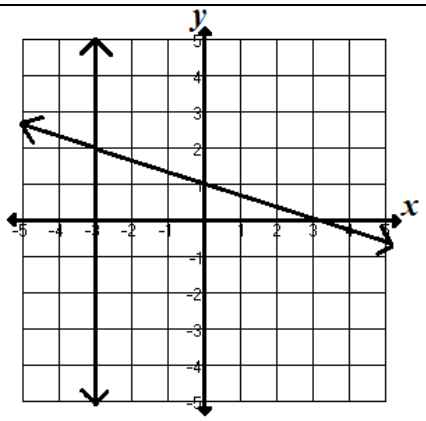


(3, 0)

15)

$y = -\frac{1}{3}x + 1$

$x = -3$

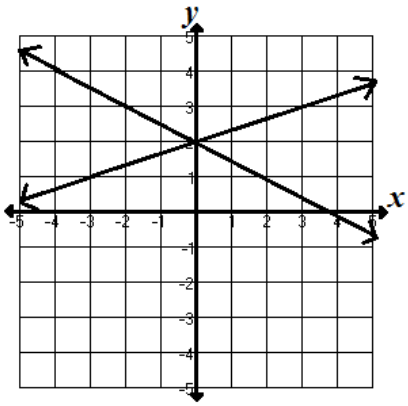


(–3, 2)

16)

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

$y = -\frac{1}{2}x + 2$

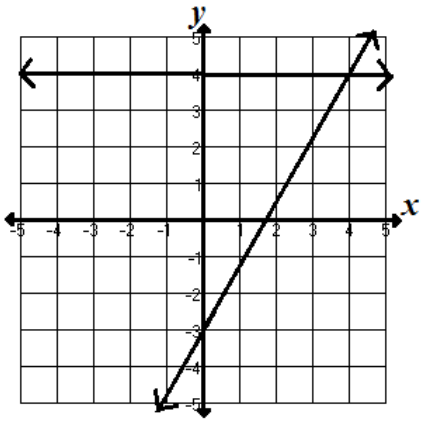


(0, 2)

17)

$y = \frac{7}{4}x - 3$

$y = 4$

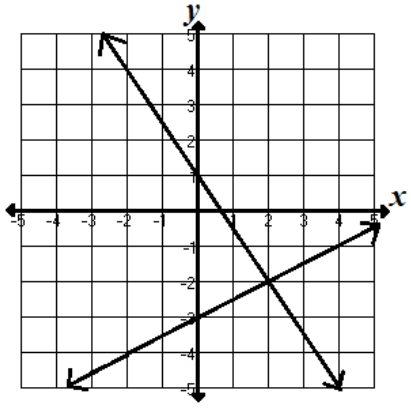


(4, 4)

18)

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

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

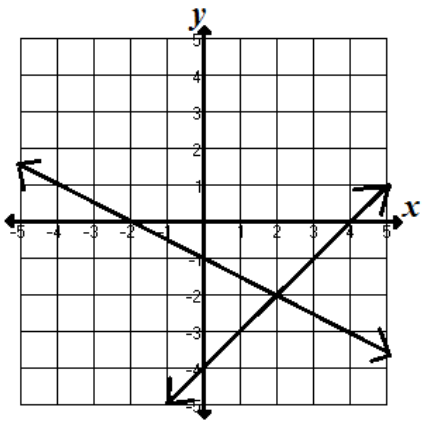


(2, –2)

19)

$y = x - 4$

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

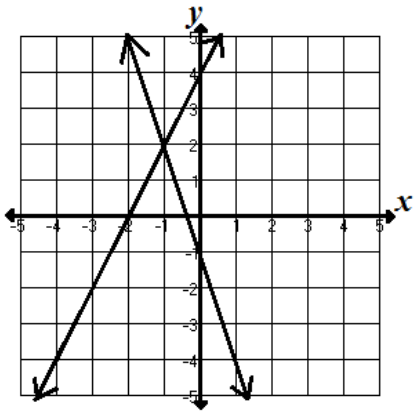


(2, –2)

20)

$y = 2x + 4$

$y = -3x - 1$

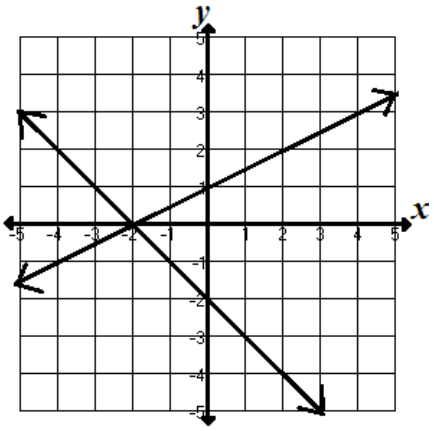


(–1, 2)

21)

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

$y = -x - 2$

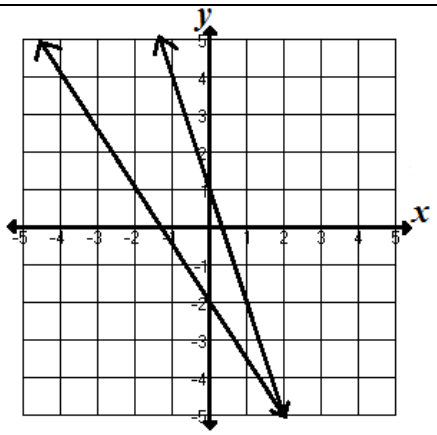


(–4, 0)

22)

$y = -\frac{3}{2}x - 2$

$y = -3x + 1$

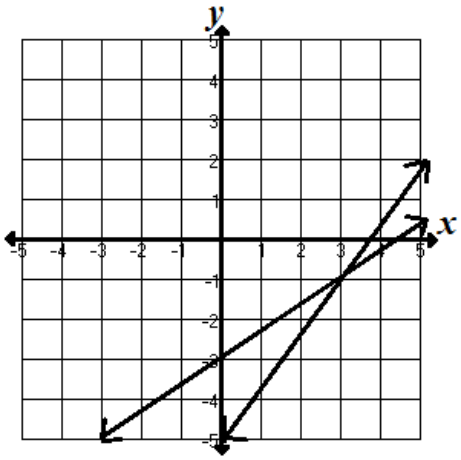


(2, –5)

23)

$y = \frac{2}{3}x - 3$

$y = \frac{4}{3}x - 5$

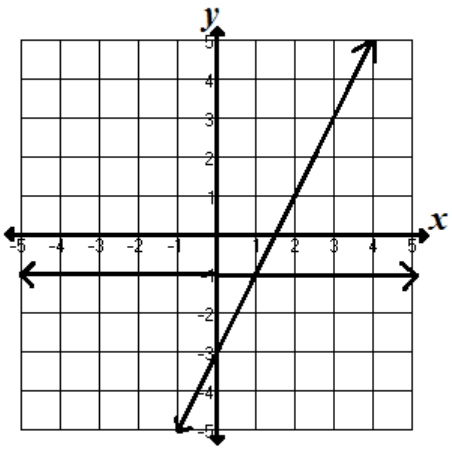


(3, –1)

24)

$y = -1$

$y = 2x - 3$



(1, –1)

Solving System of Linear Equations (Substitution Method)

Name: Date:

Solve the system of equations by the substitution method.

1. $y = 3x - 9$ $y = -x - 1$	2. $y = 5x - 2$ $y = x + 6$
3. $-3x + y = -2$ $y = x + 6$	4. $y - x = 4$ $-2x + y = 8$

5. $2x - y = 4$ $y = x + 2$	6. $5x - 2y = 1$ $y = 2x + 1$
7. $4x + 2 = -2y$ $-x - 5 = y$	8. $x + y = 6$ $-3x + y = 2$

TASC Questions:

Solve.

9. $y = 4x - 3$ $y = -2x + 3$	A) $x = -1$ $y = -1$ B) $x = 1$ $y = -1$ C) $x = 1$ $y = 1$ D) $x = -1$ $y = 1$
10. $2x + y = 0$ $3x - 3y = 36$	A) $x = 8$ $y = -4$ B) $x = -8$ $y = 4$ C) $x = -4$ $y = 8$ D) $x = 4$ $y = -8$
11. $4x - 2y = -16$ $-3x + y = 11$	A) $x = -3$ $y = 2$ B) $x = -2$ $y = 3$ C) $x = -2$ $y = 3$ D) $x = -3$ $y = -2$

Solving System of Linear Equations (Substitution Method)

Name: ANSWER KEY Date:

Solve the system of equations by the substitution method.

1. $y = 3x - 9$ $y = -x - 1$ $x = 2 \quad , \quad y = -3$	2. $y = 5x - 2$ $y = x + 6$ $x = 2 \quad , \quad y = 8$
3. $-3x + y = -2$ $y = x + 6$ $x = 4 \quad , \quad y = 10$	4. $y - x = 4$ $-2x + y = 8$ $x = -4 \quad , \quad y = 0$

5. $2x - y = 4$ $y = x + 2$ $x = 6 \quad , \quad y = 8$	6. $5x - 2y = 1$ $y = 2x + 1$ $x = 3 \quad , \quad y = 7$
7. $4x + 2 = -2y$ $-x - 5 = y$ $x = 4 \quad , \quad y = -9$	8. $x + y = 6$ $-3x + y = 2$ $x = 1 \quad , \quad y = 5$

Possible TASC Questions:

Solve.

9. $y = 4x - 3$ $y = -2x + 3$	A) $x = -1$ $y = -1$ B) $x = 1$ $y = -1$ C) $x = 1$ $y = 1$ D) $x = -1$ $y = 1$
10. $2x + y = 0$ $3x - 3y = 36$	A) $x = 8$ $y = -4$ B) $x = -8$ $y = 4$ C) $x = -4$ $y = 8$ D) $x = 4$ $y = -8$
11. $4x - 2y = -16$ $-3x + y = 11$	A) $x = -3$ $y = 2$ B) $x = -2$ $y = 3$ C) $x = -2$ $y = 3$ D) $x = -3$ $y = -2$

Solving Systems of Linear Equations (Elimination Method)

Name: Date:

Solve the system of equations by the elimination method.

1. $5x + 2y = -4$
$-2x + 6y = 5$

2. $5x + 4y = -1$
$-7x - 2y = -13$

3. $4x + 4y = 44$
$5x - 3y = -57$

4. $10x - 3y = -32$
$-6x + 7y = 40$

5. $3x + y = 11$
$4x + y = 14$

6. $5x - 2y = 1$
$2x - y = -1$

7.	$4x + 2y = -2$ $x + y = -5$
8.	$4x - 2y = -16$ $-3x + y = 11$
9.	$2x + 3y = 5$ $x + 3y = 1$

TASC Questions.

Solve.

10. $2x+5y=-22$ $10x+3y=22$	A) $x = -4$ $y = 6$ B) $x = 4$ $y = -6$ C) $x = 4$ $y = 6$ D) $x = -4$ $y = 6$
11. $4x+2y=14$ $7x-3y=-8$	A) $x = -1$ $y = 5$ B) $x = -1$ $y = -5$ C) $x = 1$ $y = 5$ D) $x = 1$ $y = -5$
12. $3x-2y=10$ $2x+3y=-2$	A) $x = 2$ $y = -2$ B) $x = 2$ $y = 2$ C) $x = -2$ $y = 2$ D) $x = -2$ $y = -2$

Solving Systems of Linear Equations (Elimination Method)

Name: ANSWER KEY Date:

Solve the system of equations by the elimination method.

1. $5x + 2y = -4$
$-2x + 6y = 5$

$x = -1 \quad , \quad y = \frac{1}{2}$

2. $5x + 4y = -1$
$-7x - 2y = -13$

$x = 3 \quad , \quad y = -4$

3. $4x + 4y = 44$
$5x - 3y = -57$

$x = -3 \quad , \quad y = 14$

4. $10x - 3y = -32$

$-6x + 7y = 40$

$x = -2 \quad , \quad y = 4$

5. $3x + y = 11$

$4x + y = 14$

$x = 3 \quad , \quad y = 2$

6. $5x - 2y = 1$

$2x - y = -1$

$x = 3 \quad , \quad y = 7$

7. $4x + 2y = -2$

$x + y = -5$

$x = 4 \quad , \quad y = -9$

8. $4x - 2y = -16$

$-3x + y = 11$

$x = -3 \quad , \quad y = 2$

9. $2x + 3y = 5$

$x + 3y = 1$

$x = 4 \quad , \quad y = -1$

Possible TASC Questions:

Solve.

10. $2x+5y=-22$ $10x+3y=22$	A) $x = -4$ $y = 6$ B) $x = 4$ $y = -6$ C) $x = 4$ $y = 6$ D) $x = -4$ $y = 6$
11. $4x+2y=14$ $7x-3y=-8$	A) $x = -1$ $y = 5$ B) $x = -1$ $y = -5$ C) $x = 1$ $y = 5$ D) $x = 1$ $y = -5$
12. $3x-2y=10$ $2x+3y=-2$	A) $x = 2$ $y = -2$ B) $x = 2$ $y = 2$ C) $x = -2$ $y = 2$ D) $x = -2$ $y = -2$

Art Project: Systems of Linear Equations

Choose a system from below. Find the solution and graph on the next page.

1) $2x+3y=6$
$2x+y=-2$

2) $x-2y=2$
$x+y=5$

3) $x+3y=3$
$-x+y=5$

4) $x-2y=4$
$2x+y=3$

5) $3x-y=9$
$x+y=-1$

6) $x+y=1$
$x-2y=4$

7) $2x-y=4$
$x+y=5$

8) $x+2y=6$
$x-y=3$

9) $3x-y=3$
$2x+y=2$

10) $x-y=5$
$2x+y=-2$

11) $5x-2y=10$
$3x+2y=6$

12) $2x+y=8$
$y-x=2$

13) $3x+2y=-4$
$2y-x=-4$

14) $2x-3y=9$
$4x+3y=-9$

15) $5x-2y=10$
$3x+2y=6$

16) $x-y=5$
$2x+y=4$

17) $x+y=6$
$2x-y=6$

18) $2x-y=8$
$x-3y=9$

19) $x+2y=12$
$2x-y=-6$

20) $2x-y=-4$
$y-x=5$

21) $2x-y=1$
$x-y=1$

22) $x-y=4$
$2x-y=6$

23) $2x-y=4$
$3x+2y=6$

24) $4x+3y=27$
$2x-y=1$

Systems of Linear Equations

Objective: Solve a system of linear equations algebraically and graphically

Name: _____

Equation 1:

_____

Slope = _____

y – intercept = _____

Equation 2:

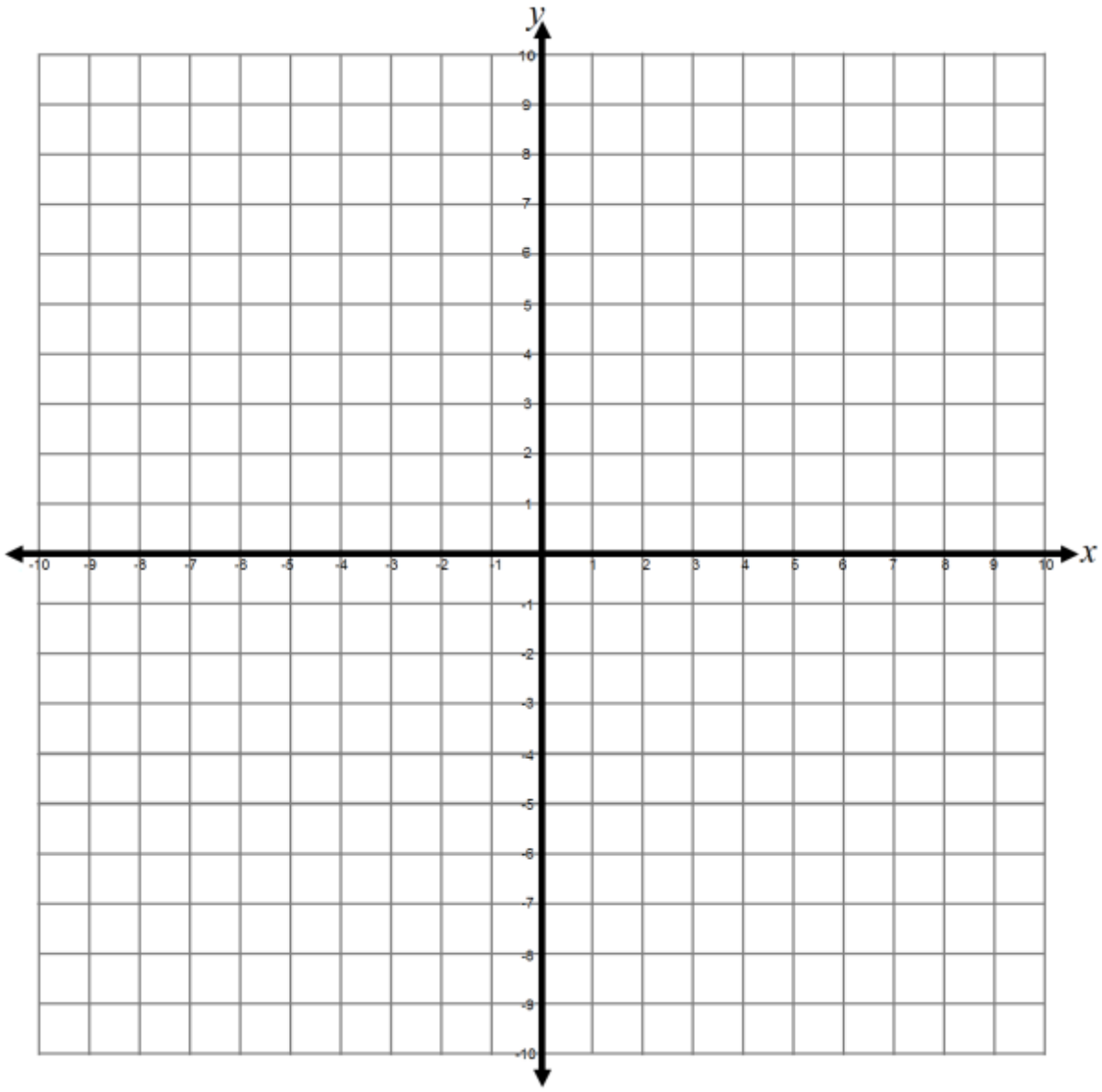
_____

Slope = _____

y – intercept = _____

Solution of the system:

_____

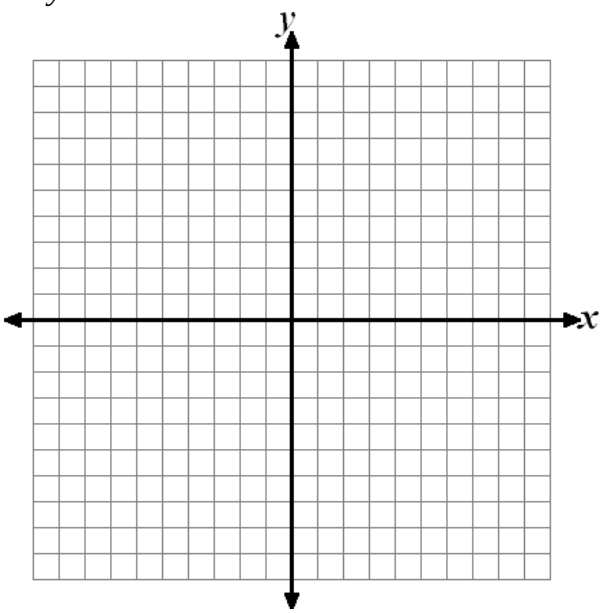


Linear Inequalities

Name: Date:

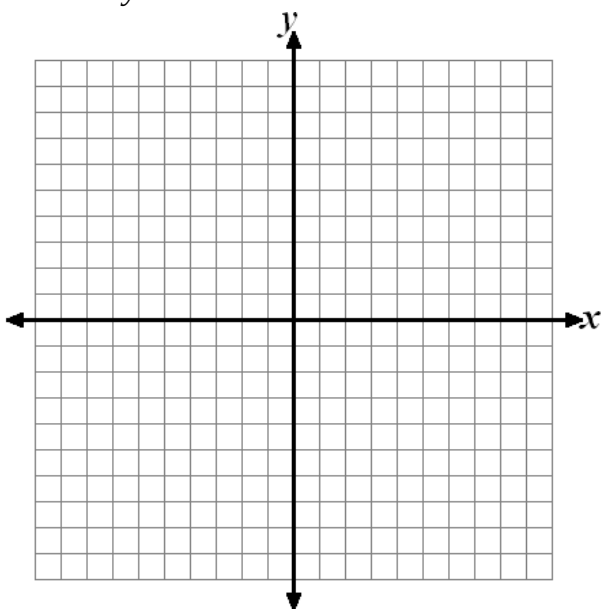
Graph each linear inequality. State a point in the solution set.

1. $y \geq 6$



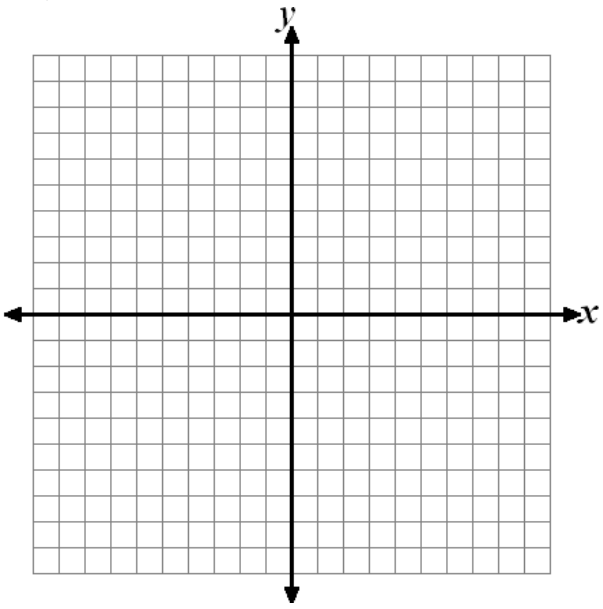
Point: _____

2. $y < 2$



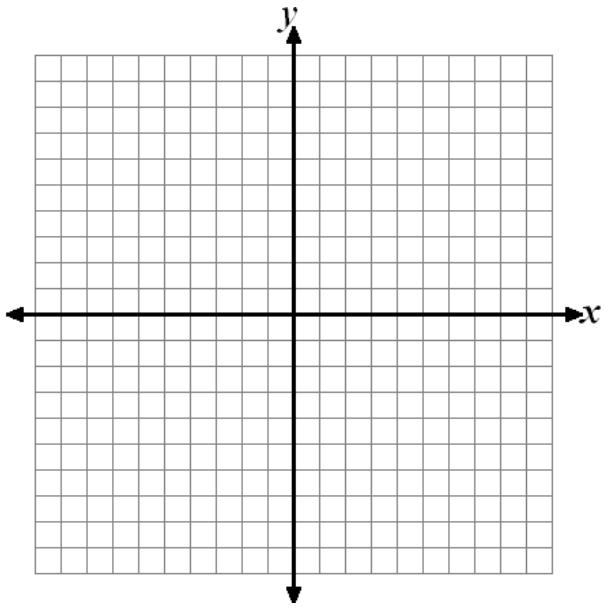
Point: _____

3. $y < -1$



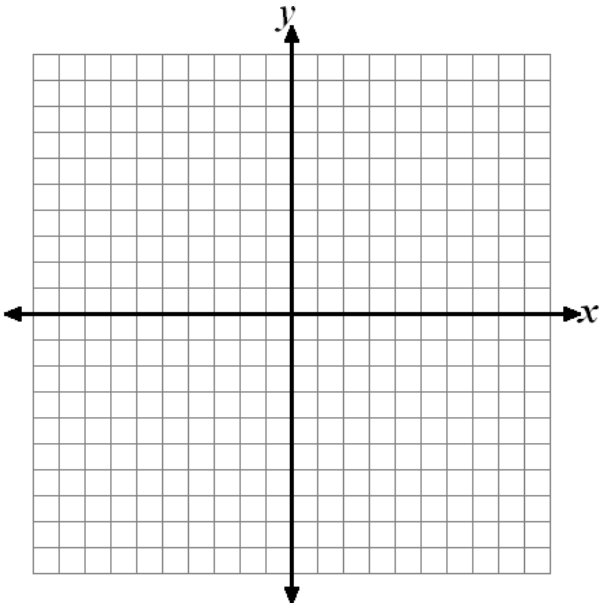
Point: _____

4. $x \leq 5$



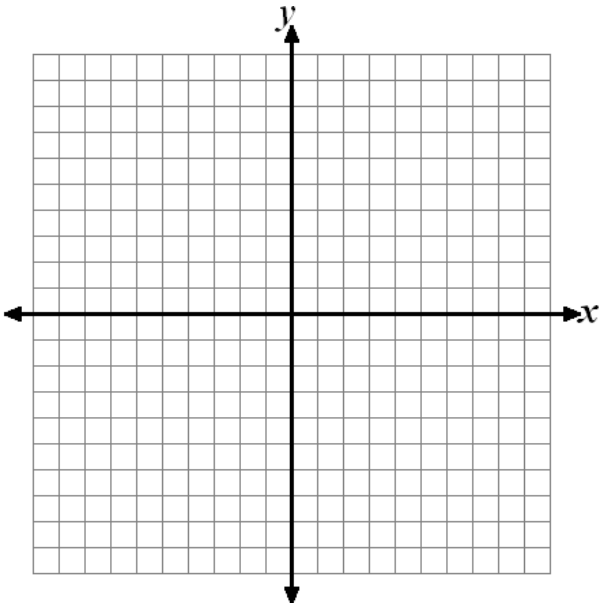
Point: _____

5. $x > -7$



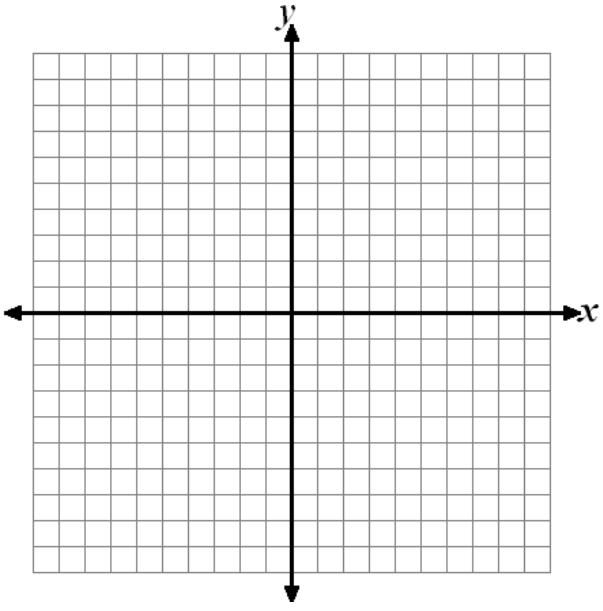
Point: _____

6. $x < 9$



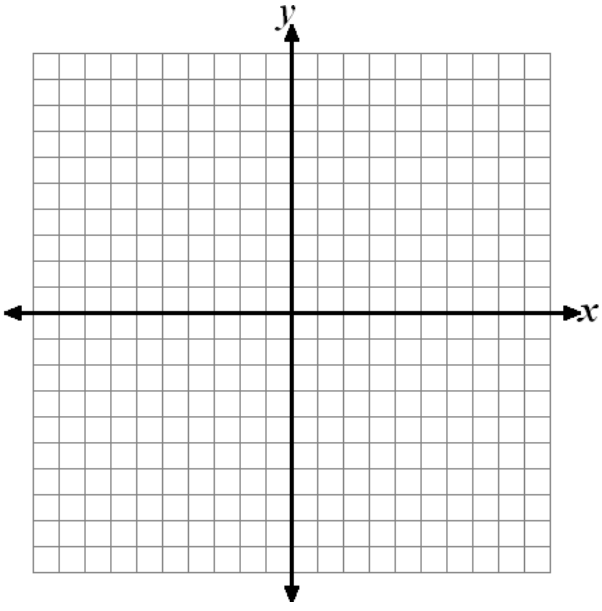
Point: _____

7. $y < x$



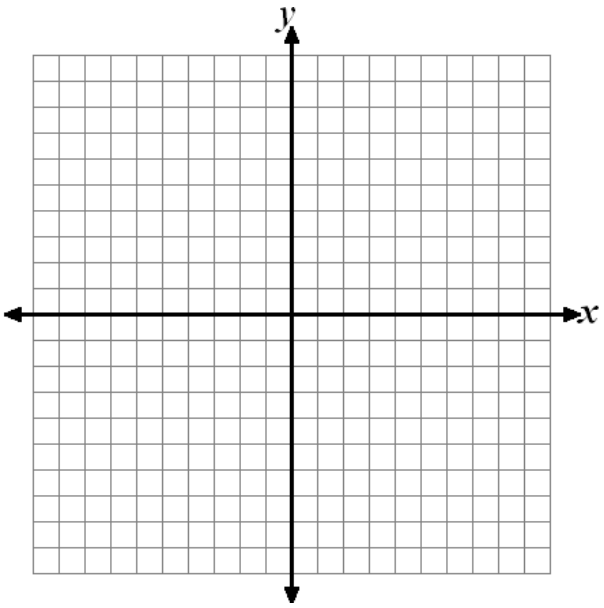
Point: _____

8. $y \geq 2x$



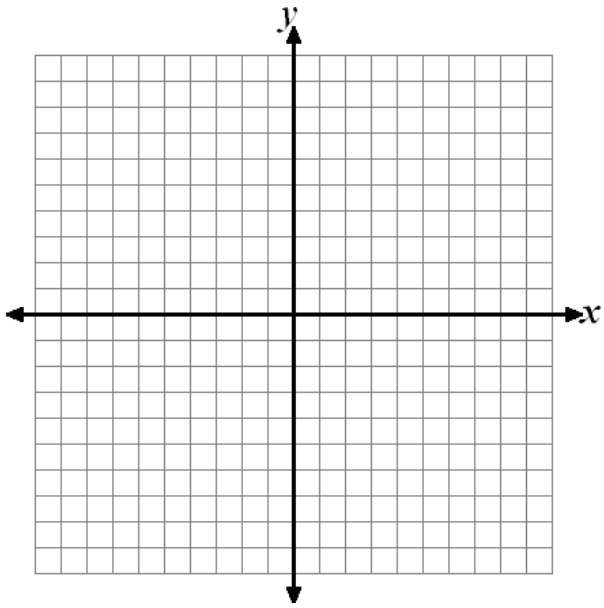
Point: _____

9. $y < 3x - 1$



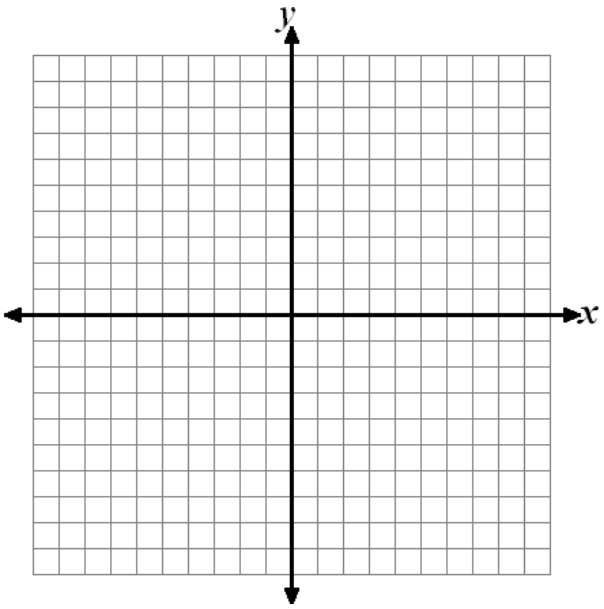
Point: _____

10. $y \geq \frac{1}{2}x + 3$



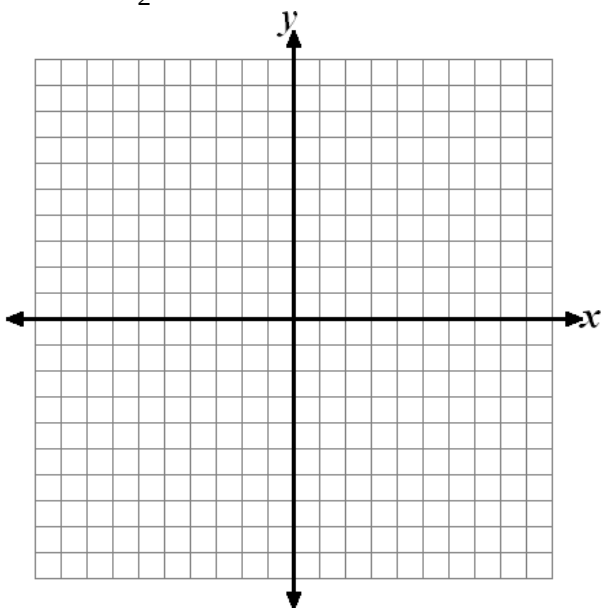
Point: _____

11. $y < x + 4$



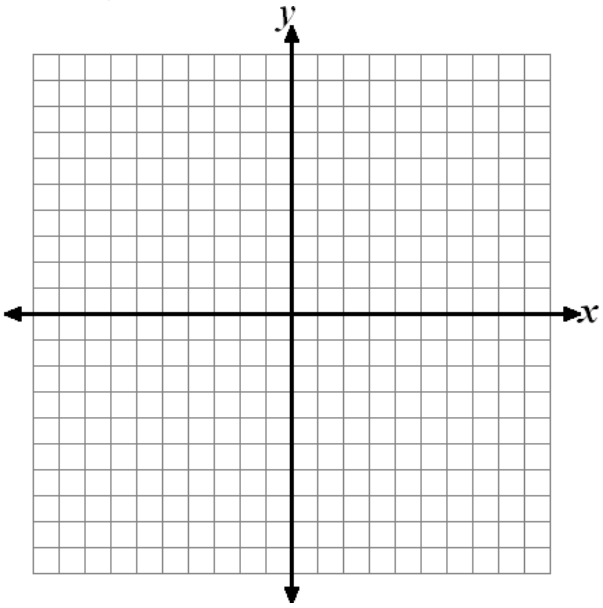
Point: _____

12. $y \geq -\frac{1}{2}x + 3$



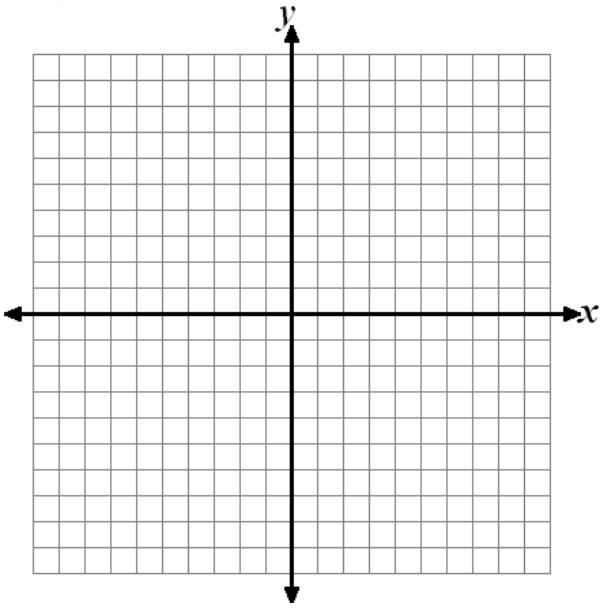
Point: _____

13. $x + y > -1$



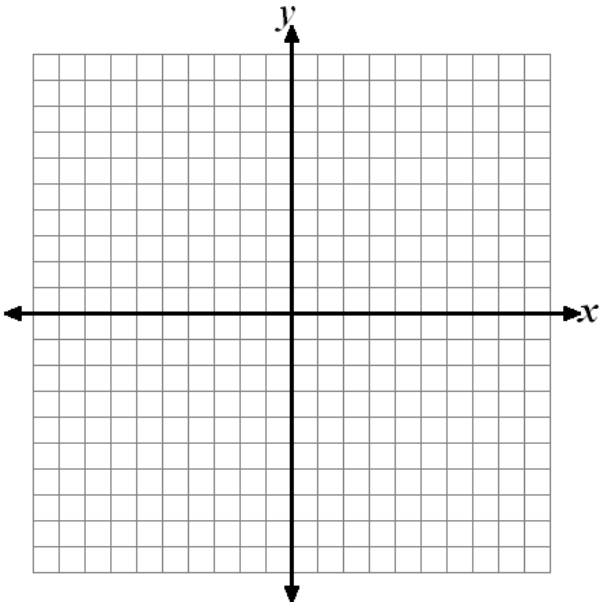
Point: _____

14. $y - x \leq 3$



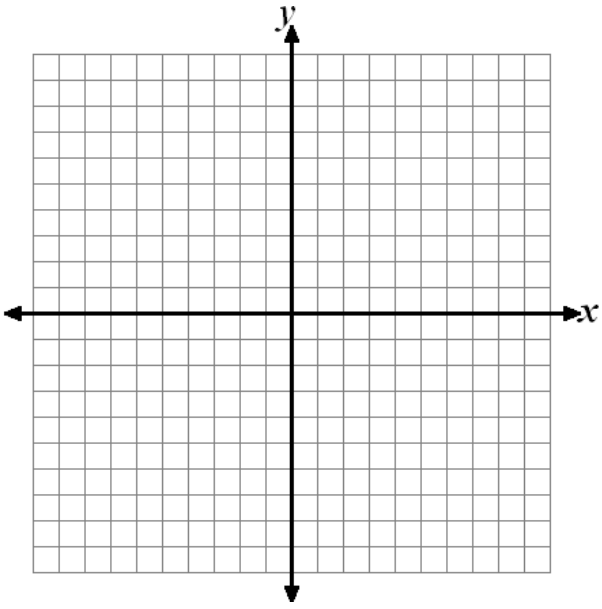
Point: _____

15. $y - 2x > -5$



Point: _____

16. $y + \frac{2}{3}x \leq 6$



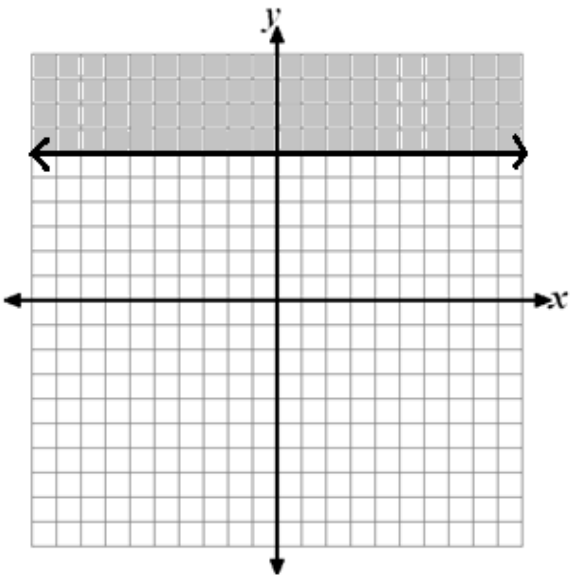
Point: _____

Linear Inequalities

Name: Date:

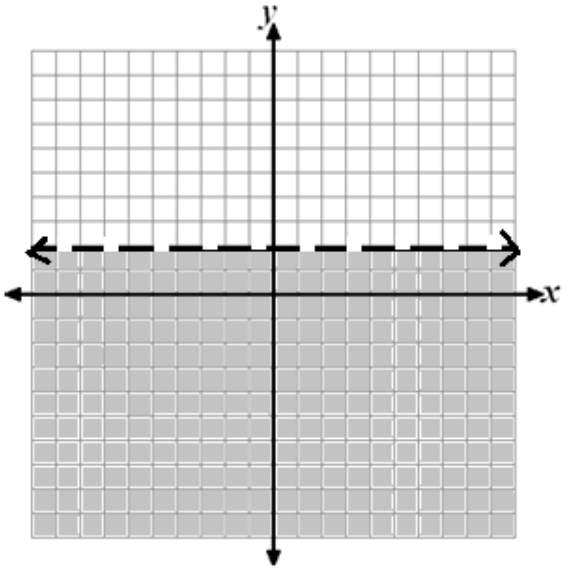
Graph each linear inequality. State a point in the solution set.

1. $y \geq 6$



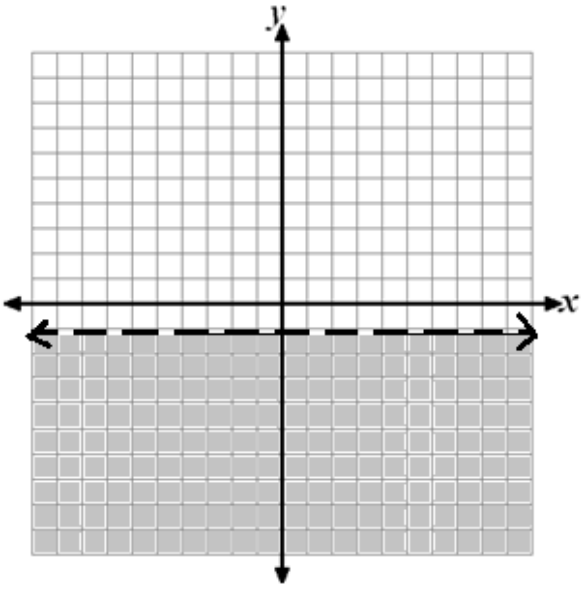
Point: _____

2. $y < 2$



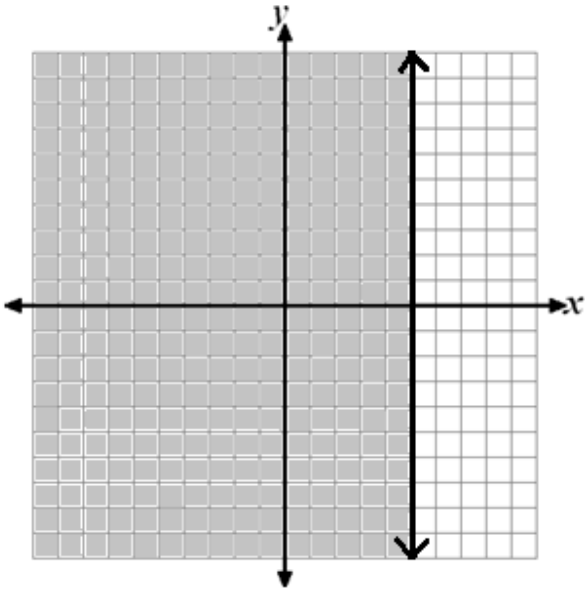
Point: _____

3. $y < -1$



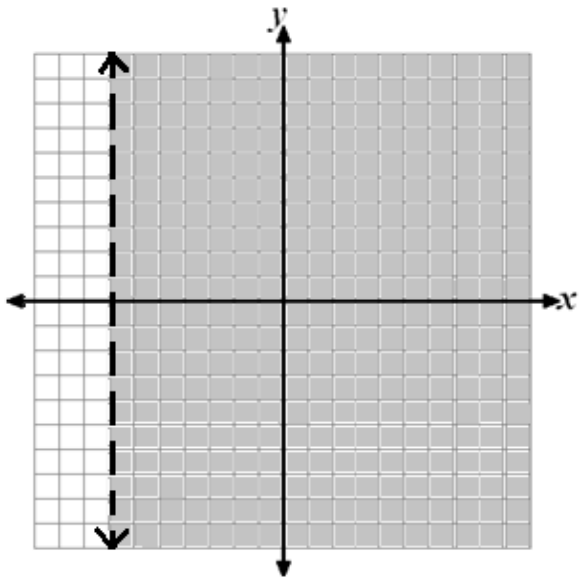
Point: _____

4. $x \leq 5$



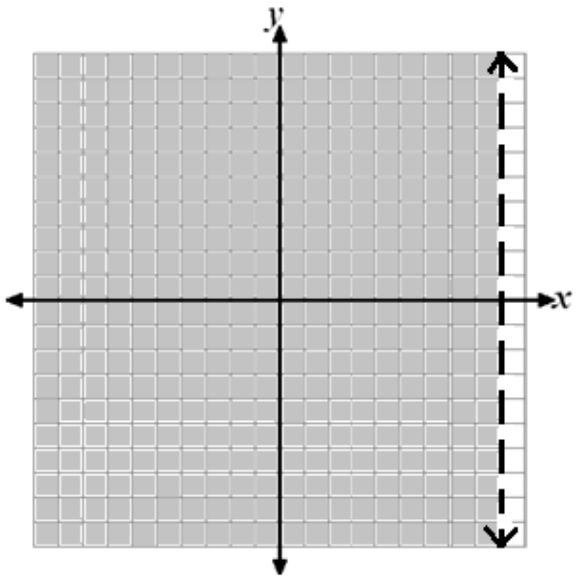
Point: _____

5. $x > -7$



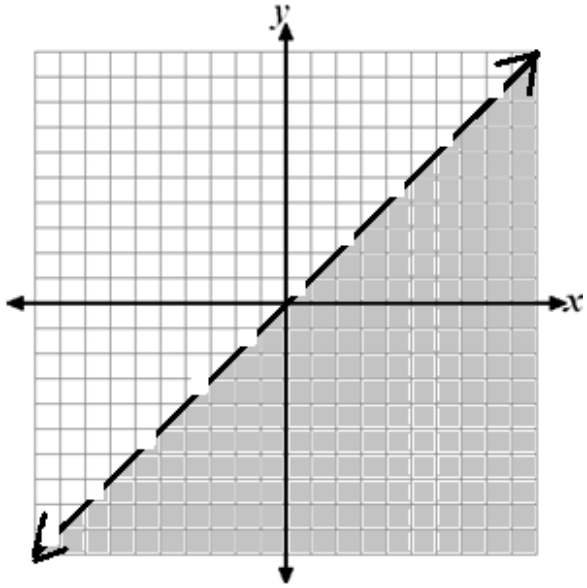
Point: _____

6. $x < 9$



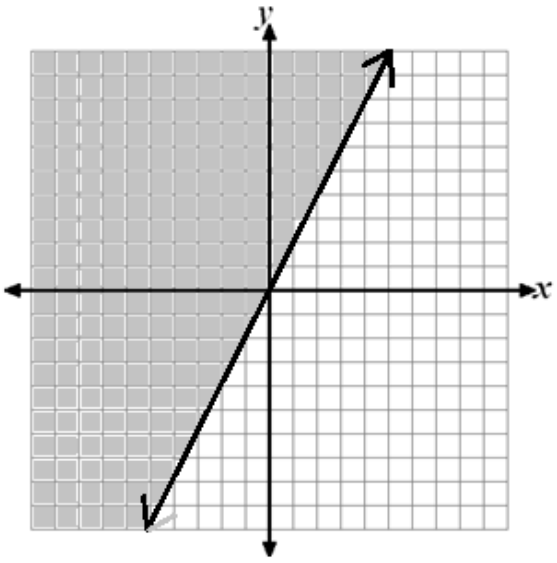
Point: _____

7. $y < x$



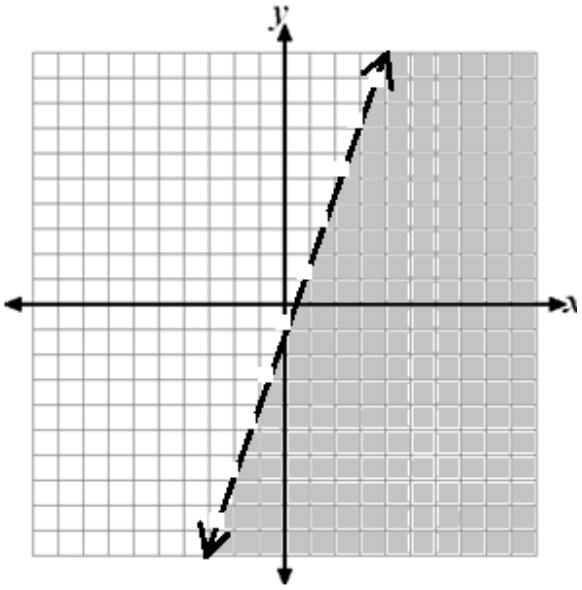
Point: _____

8. $y \geq 2x$



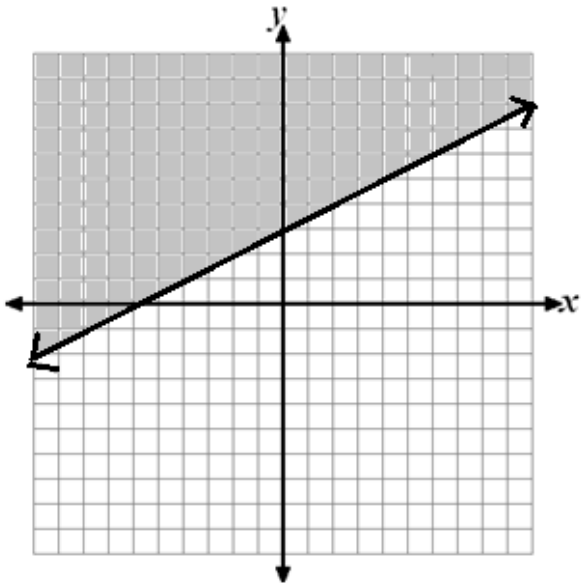
Point: _____

9. $y < 3x - 1$



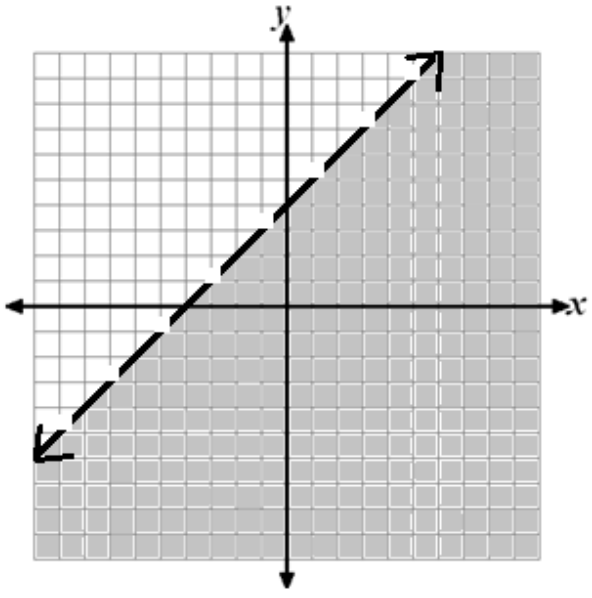
Point: _____

10. $y \geq \frac{1}{2}x + 3$



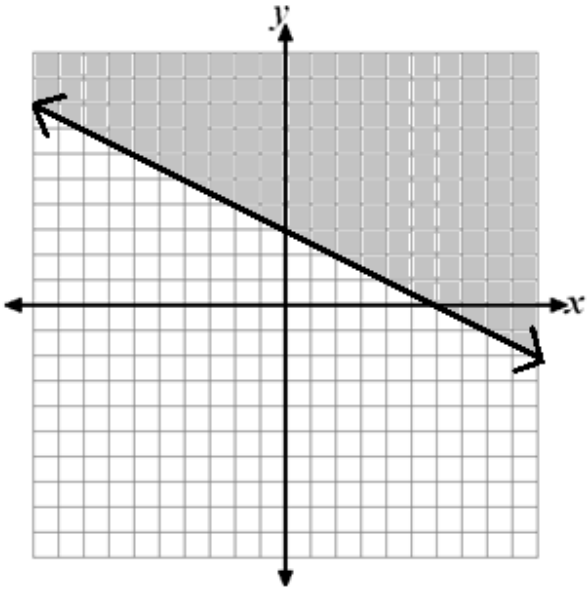
Point: _____

11. $y < x + 4$



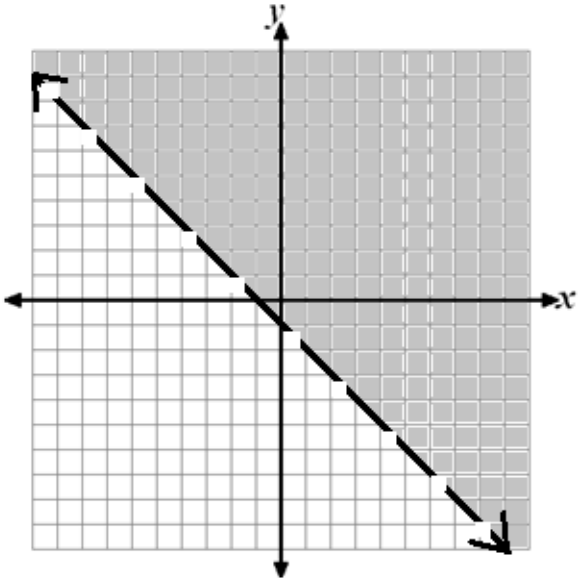
Point: _____

12. $y \geq -\frac{1}{2}x + 3$



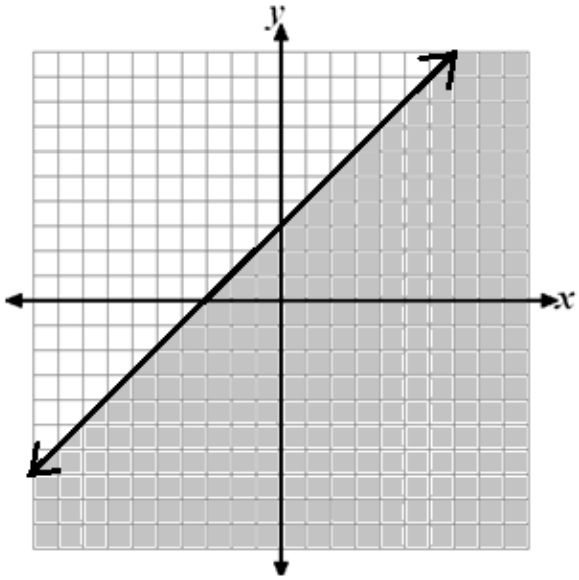
Point: _____

13. $x + y > -1$



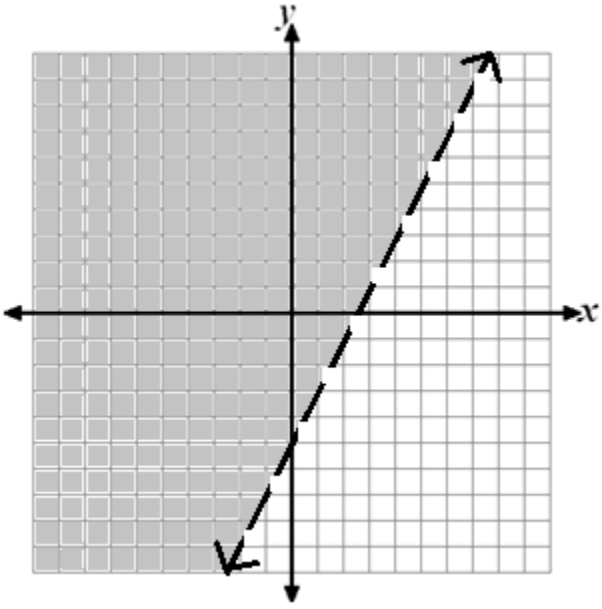
Point: _____

14. $y - x \leq 3$



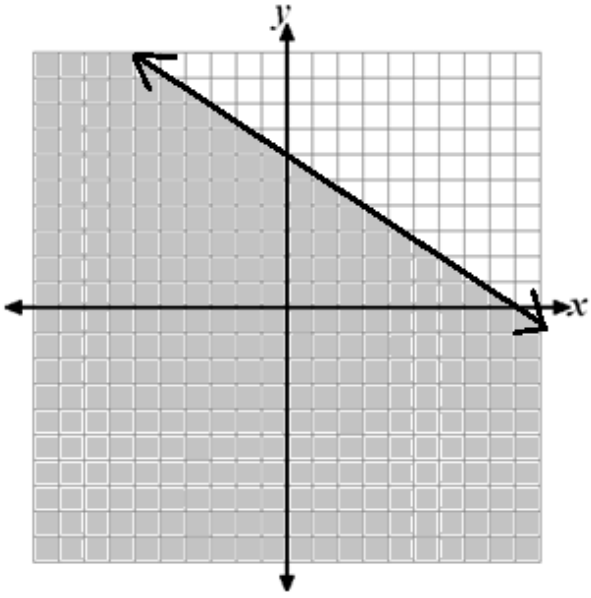
Point: _____

15. $y - 2x > -5$



Point: _____

16. $y + \frac{2}{3}x \leq 6$

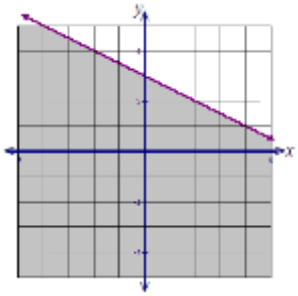


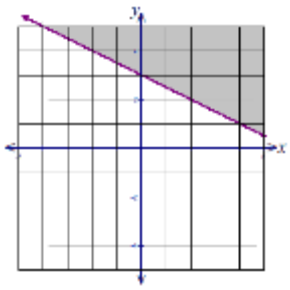
Point: _____

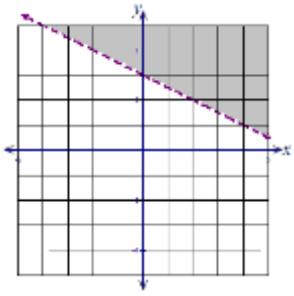
Name: Date:

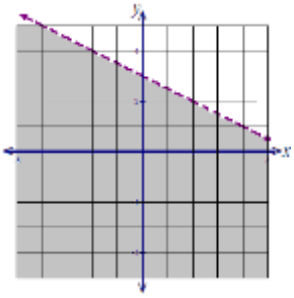
Match the inequality with the graph.

1) $y \leq -\frac{1}{2}x + 3$

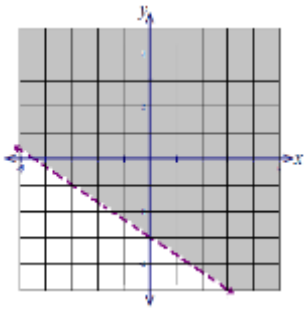
A. 

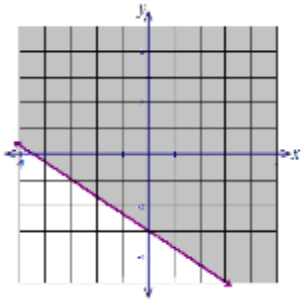
C. 

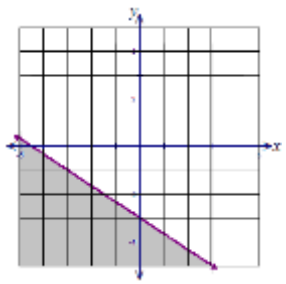
B. 

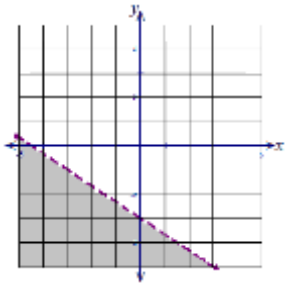
D. 

2) $y < -\frac{2}{3}x - 3$

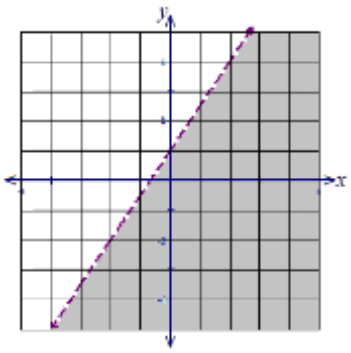
A. 

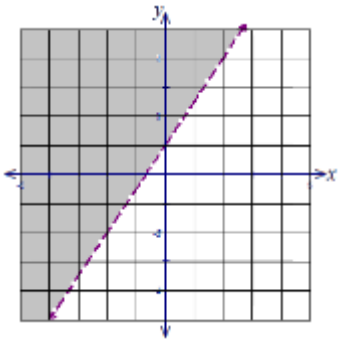
C. 

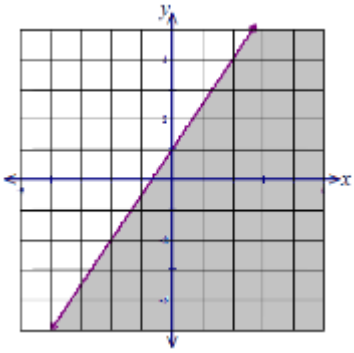
B. 

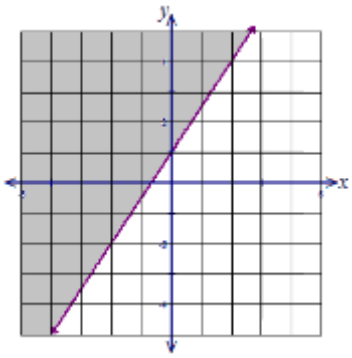
D. 

3) $y \leq \frac{3}{2}x + 1$

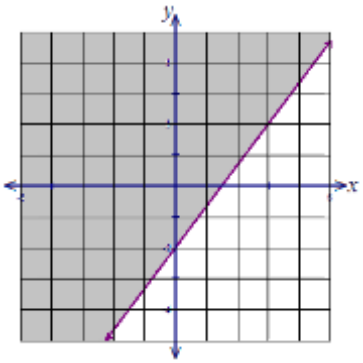
A. 

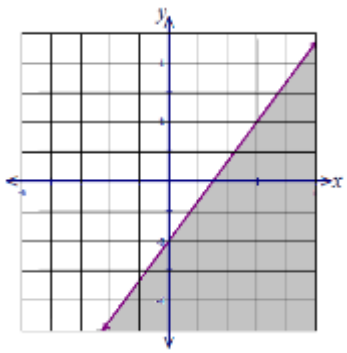
C. 

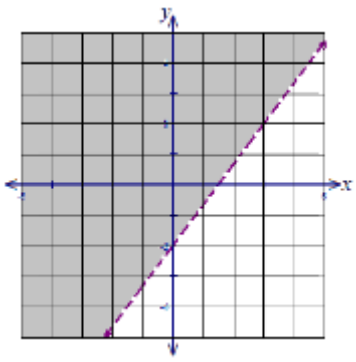
B. 

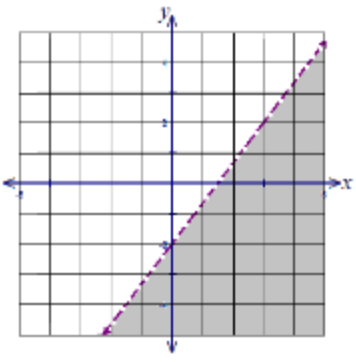
D. 

4) $y \geq \frac{4}{3}x - 2$

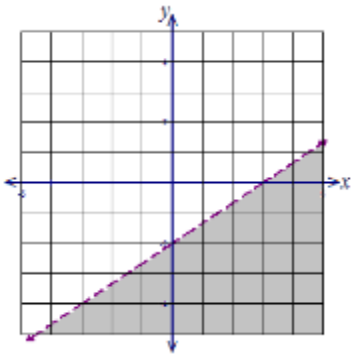
A. 

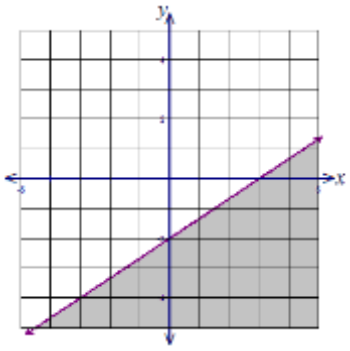
C. 

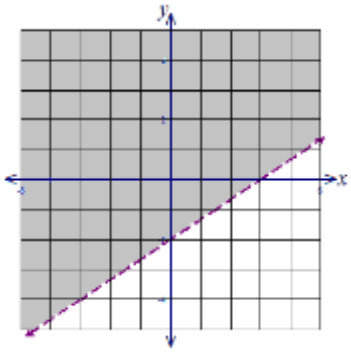
B. 

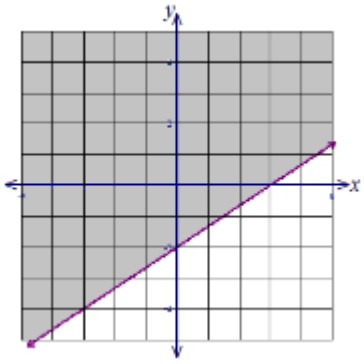
D. 

5) $y \geq \frac{2}{3}x - 2$

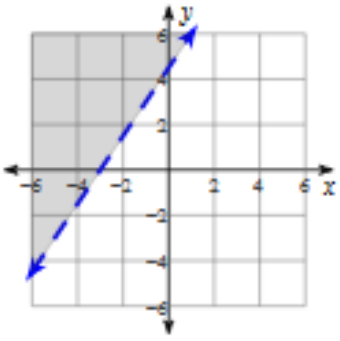
A. 

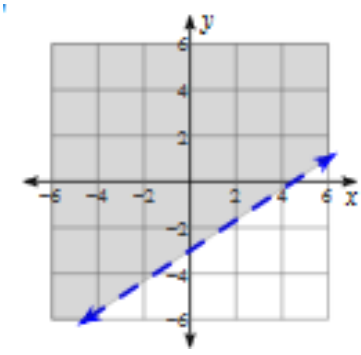
C. 

B. 

J. 

6) $y > \frac{2}{3}x - 3$

A. 

C. 

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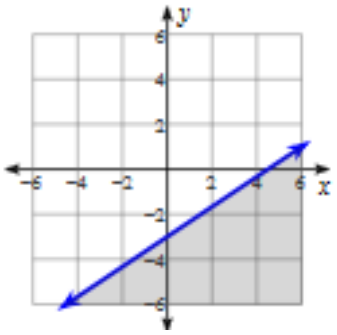
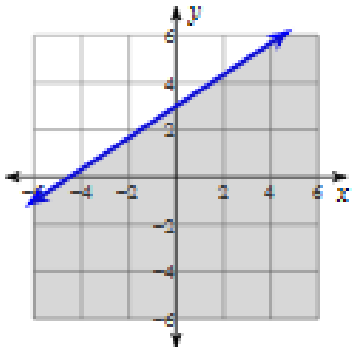
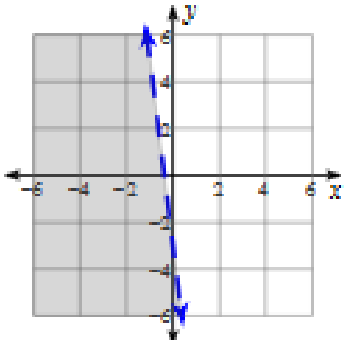


D.



7) $y < 8x - 3$

A.



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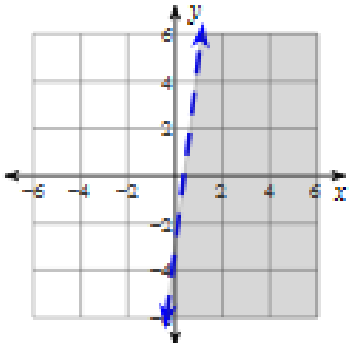

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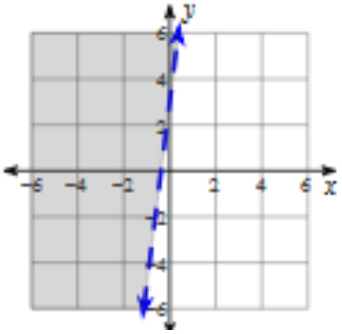
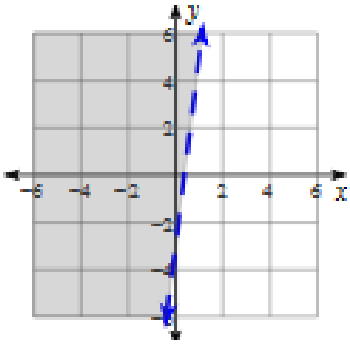
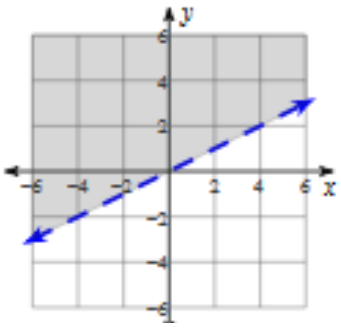


D.



8) $y > \frac{1}{2}x$

A.



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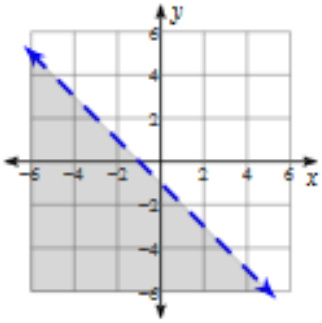

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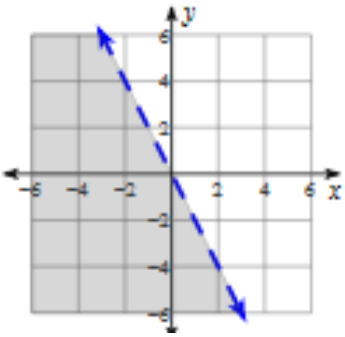
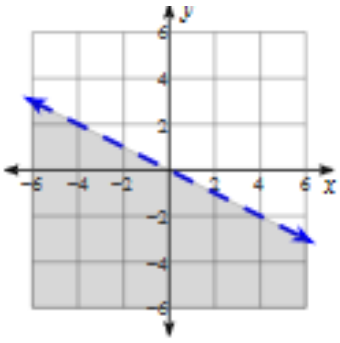
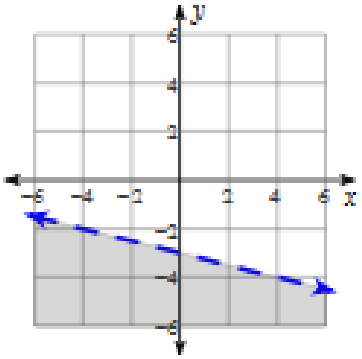


D.

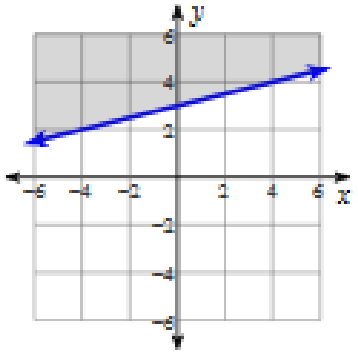


9) $y < -\frac{1}{4}x - 3$

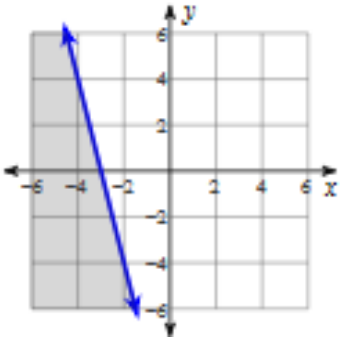
A.



C.



B.



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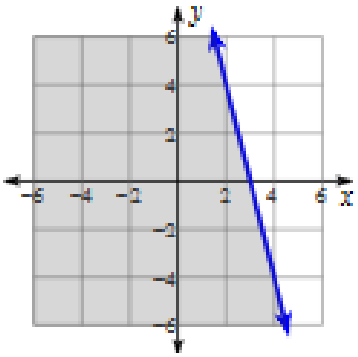
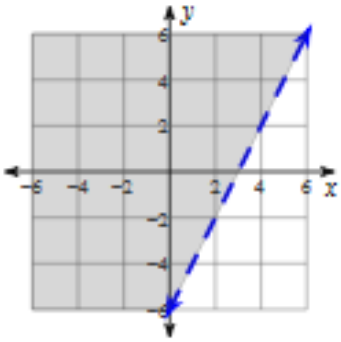
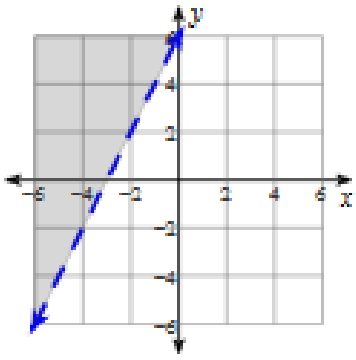


10) $y < -\frac{1}{2}x - 3$

A.



C.



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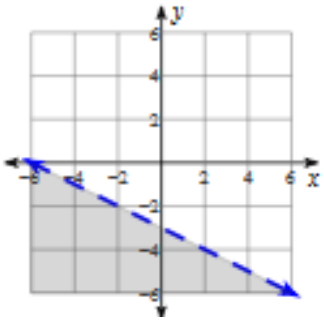

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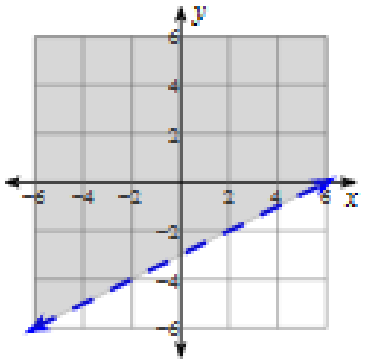
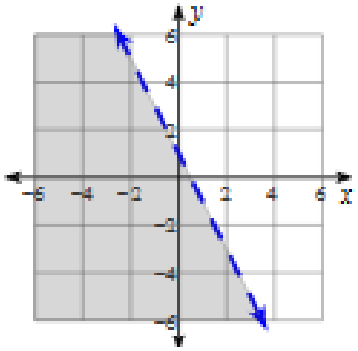
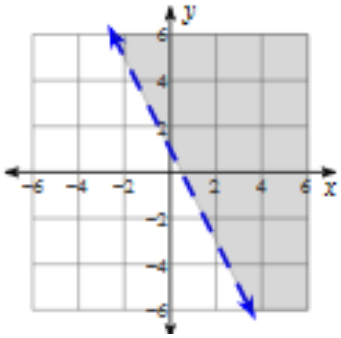


11) $y > -2x + 1$

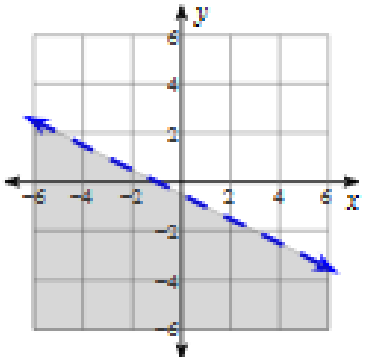
A.



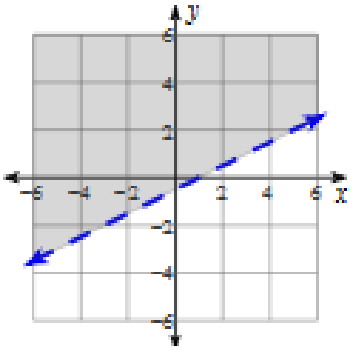
C.



B.

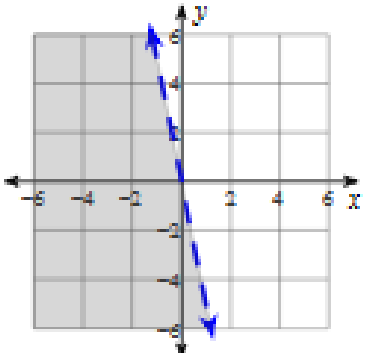


D.



12) $y > -5x$

A.



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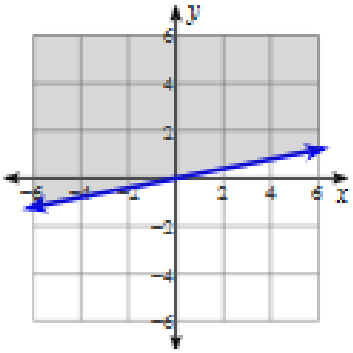
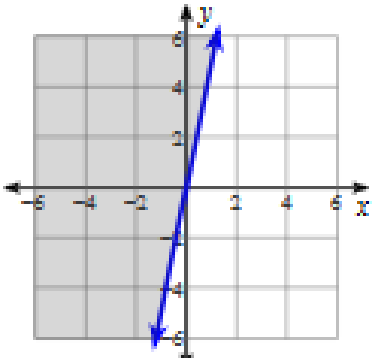
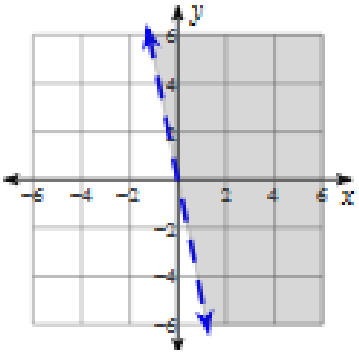


B.

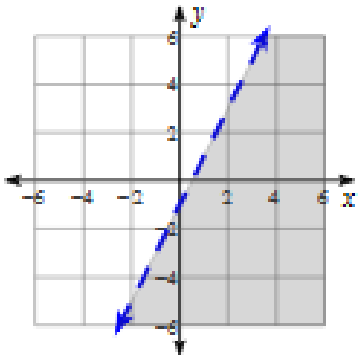


D.

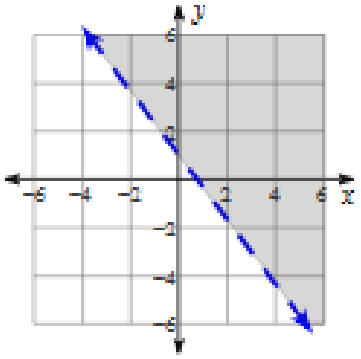


13) $y < 2x - 1$

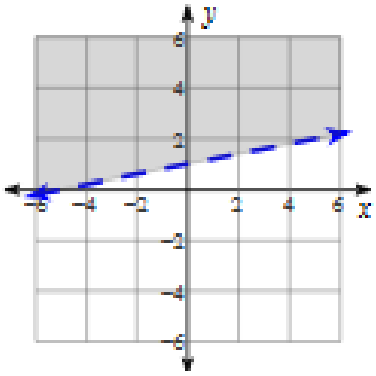
A.



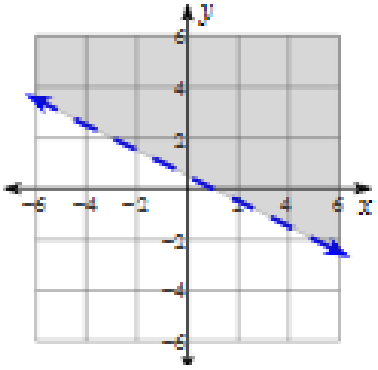
C.



B.

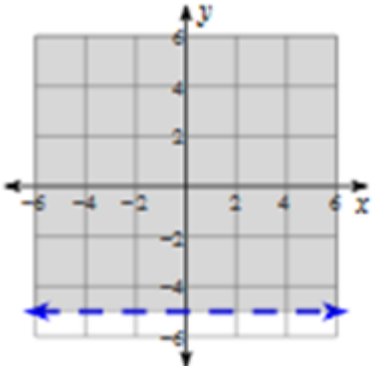


D.

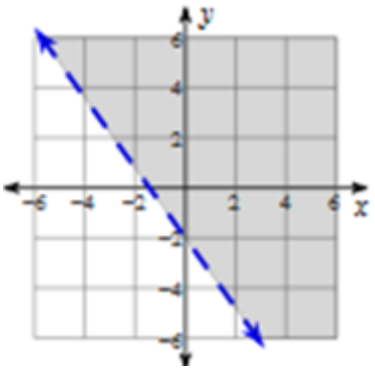


14) $y \leq \frac{7}{5}x - 2$

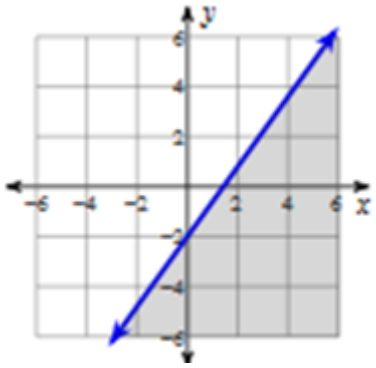
A.



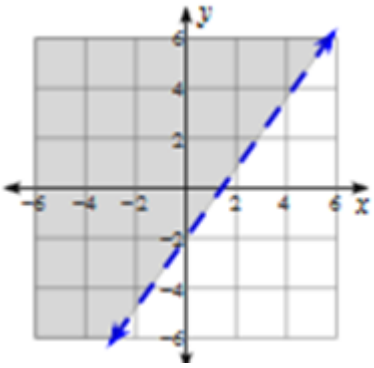
C.



B.

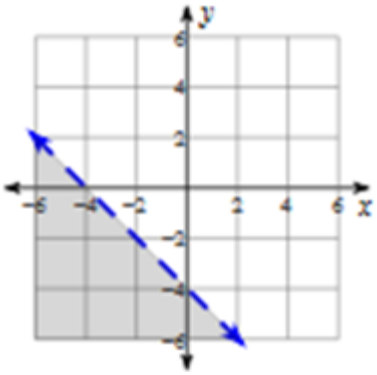


D.

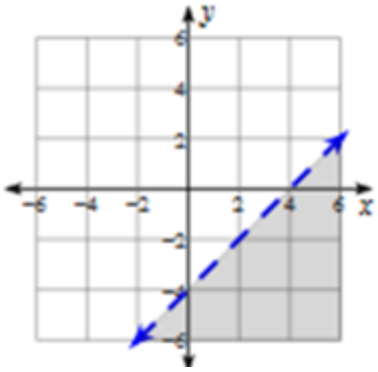


15) $y > -x + 4$

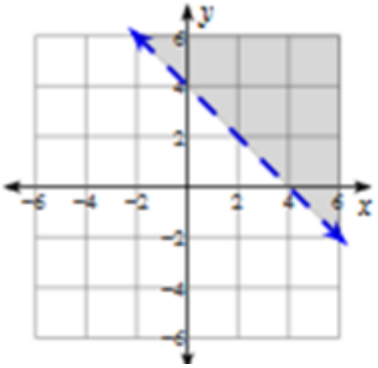
A.



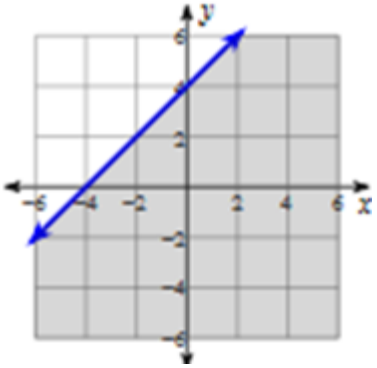
C.



B.

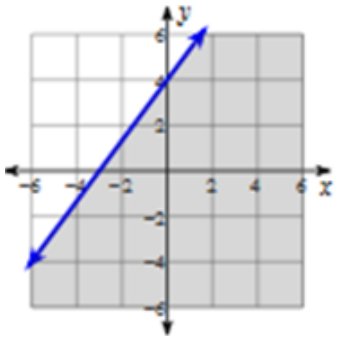


D.

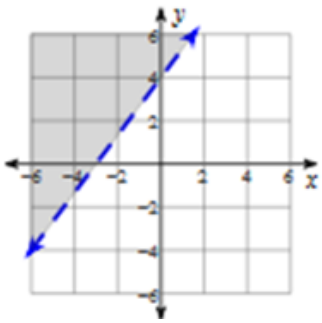


16) $y \leq \frac{4}{3}x + 4$

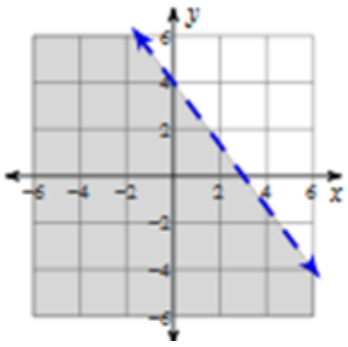
A.



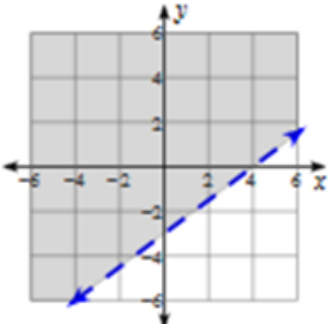
C.



B.



D.



Name: ANSWER KEY Date:

Match the inequality with the graph.

1	A	11	C
2	D	12	D
3	B	13	A
4	A	14	B
5	J	15	B
6	C	16	A
7	C		
8	A		
9	A		
10	B		

Art Project: Linear Inequalities

Choose a linear inequality below. Graph and find a solution set.

1) $y \leq -4x + 3$

2) $y < \frac{1}{4}x + 2$

3) $y < 6x + 3$

4) $y \geq \frac{7}{2}x - 5$

5) $y \geq x - 1$

6) $y < 3x + 5$

7) $y > -\frac{2}{5}x + 3$

8) $y \geq -x + 3$

9) $y < \frac{7}{5}x - 3$

10) $y \leq -\frac{1}{3}x + 2$

11) $y > -2x - 1$

12) $y < \frac{2}{3}x - 5$

13) $y \geq 5x - 2$

14) $y < -\frac{5}{4}x$

15) $y \geq \frac{7}{5}x - 3$

16) $y \leq 3x + 4$

17) $y > x + 3$

18) $y \leq \frac{3}{2}x + 2$

19) $y \leq -\frac{1}{3}x - 5$

20) $y > \frac{1}{4}x + 1$

21) $y < -2x - 1$

22) $y < -4x - 3$

23) $y \leq -3x - 1$

24) $y > -\frac{9}{5}x - 4$

Linear Inequalities

Objective: Graph linear inequalities and find a solution point

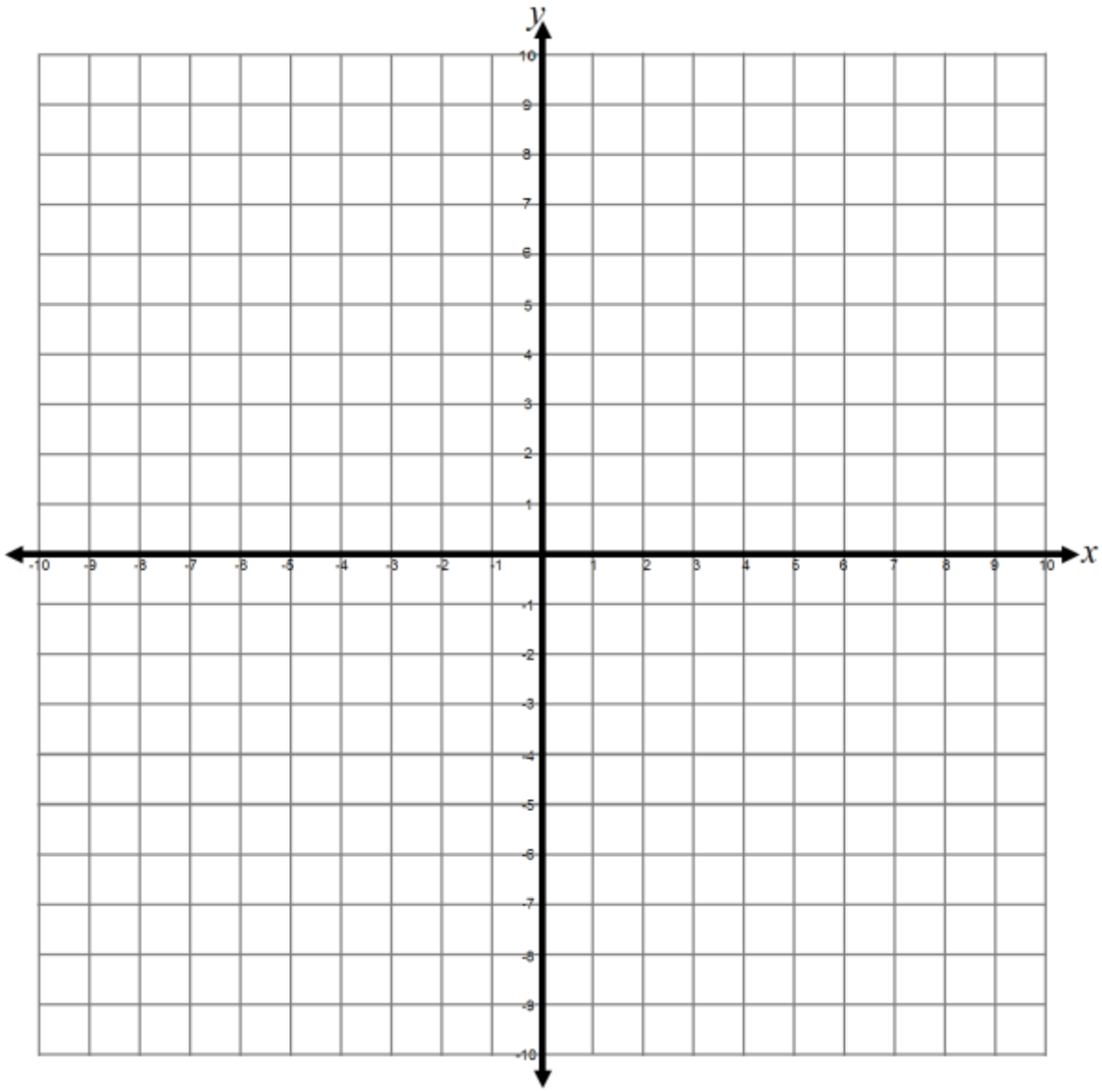
Name: _____

Equation:

_____

Solution Point:

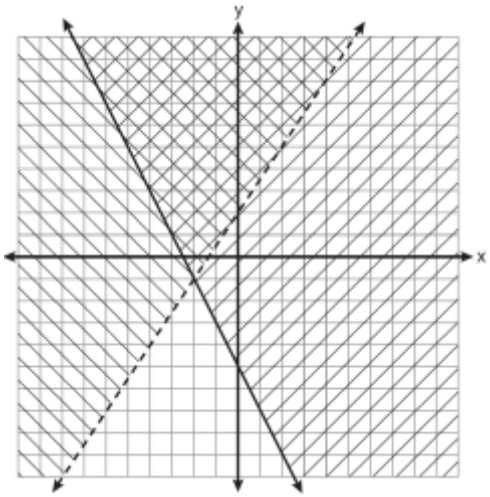
_____



System of Linear Inequalities

Name: Date:

1) Which ordered pair is in the solution set of the system of inequalities shown in the graph below?



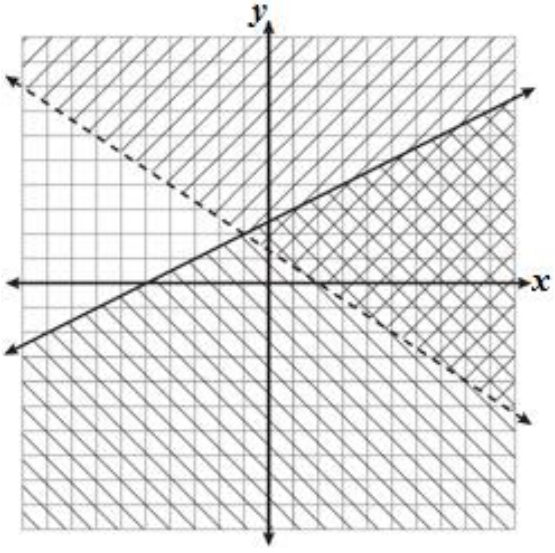
A. (–2, –1)

B (2, 5)

C. (–2, 1)

D. (–2, (–8)

2) Which ordered pair is in the solution set of the system of inequalities shown in the graph below?



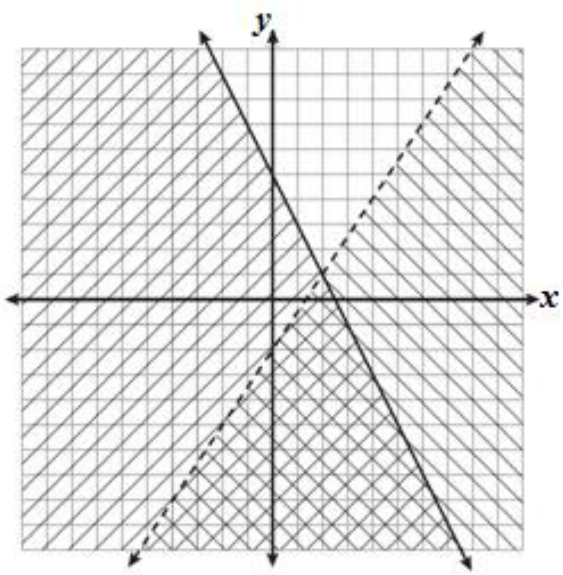
A. (–1, 2)

B (2, 0)

C. (1, 3)

D. (1,–2)

3 Which ordered pair is in the solution set of the system of inequalities shown in the graph below?



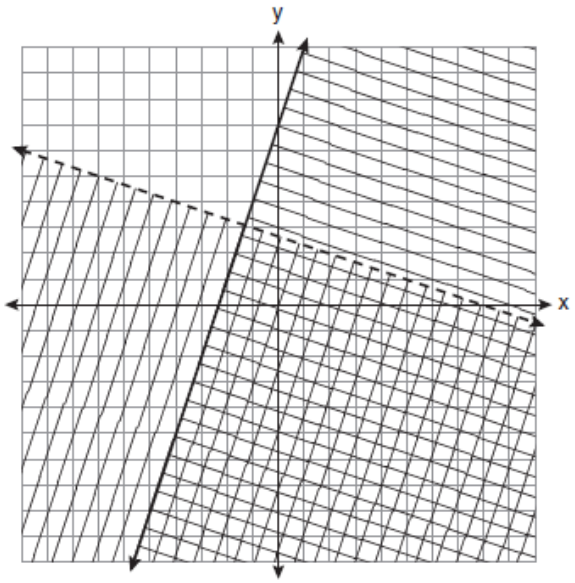
A. (–2, –5)

B (4, –2,)

C. (4, 4)

D. (5, –8)

4 Which ordered pair is in the solution set of the system of linear inequalities graphed below?



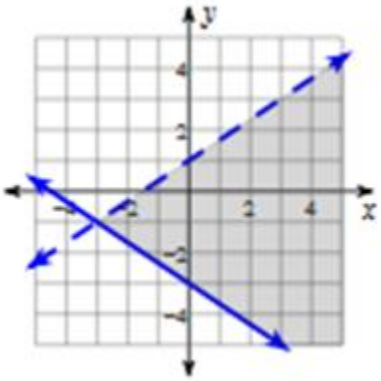
A. (1, –4)

B (–5, 7)

C. (5, 3)

D. (–7, –2)

5 Which ordered pair is in the solution set of the system of linear inequalities graphed below?



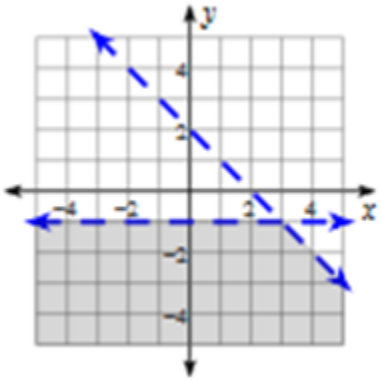
A. (3, 3)

B (0, –3)

C. (5, 4)

D. (–3, –1)

6 Which ordered pair is in the solution set of the system of linear inequalities graphed below?



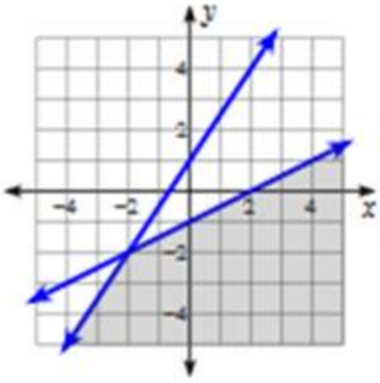
A. (3, –1)

B (4, –2)

C. (0, –2)

D. (0, 0)

7 Which ordered pair is in the solution set of the system of linear inequalities graphed below?



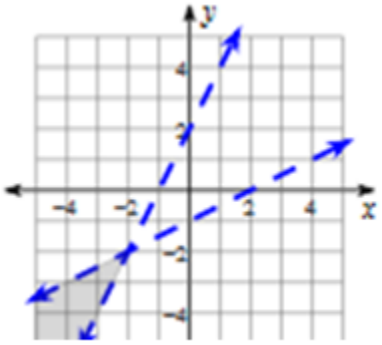
A. (2, 2)

B (–2, –2)

C. (0, 0)

D. (0, 2)

8 Which ordered pair is in the solution set of the system of linear inequalities graphed below?



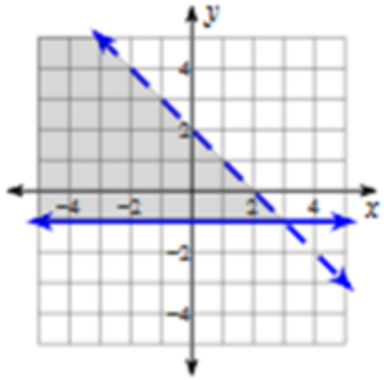
A. (–2, –2)

B (0, 0)

C. (2, 0)

D. (–4, –4)

9 Which ordered pair is in the solution set of the system of linear inequalities graphed below?



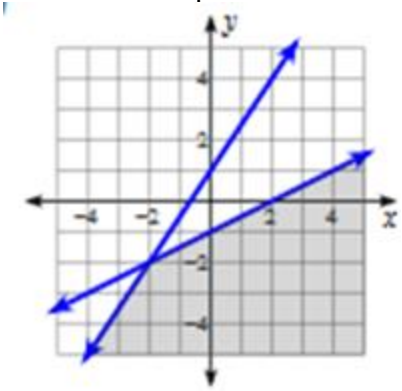
A. (3, –1)

B (0, –1)

C. (2, 0)

D. (0, 2)

10 Which ordered pair is in the solution set of the system of linear inequalities graphed below?



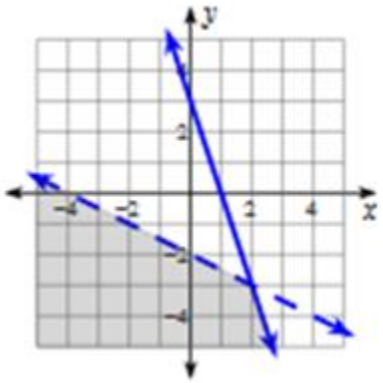
A. (2, 0)

B (–2, 0)

C. (2, 2)

D. (0, 0)

11 Which ordered pair is in the solution set of the system of linear inequalities graphed below?



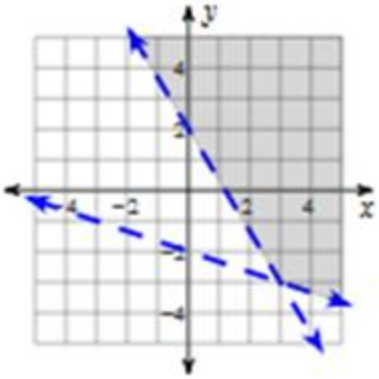
A. (1, –2)

B (–1, 2)

C. (5, 3)

D. (2, –4)

12 Which ordered pair is in the solution set of the system of linear inequalities graphed below?



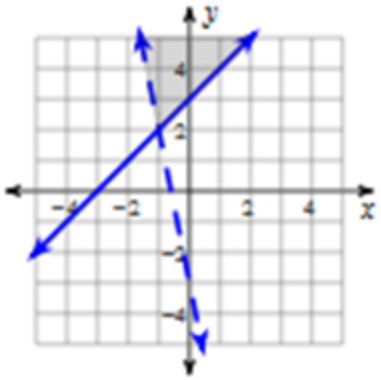
A. (3, –3)

B (–3, 1)

C. (3, –1)

D. (0, 2)

13 Which ordered pair is in the solution set of the system of linear inequalities graphed below?



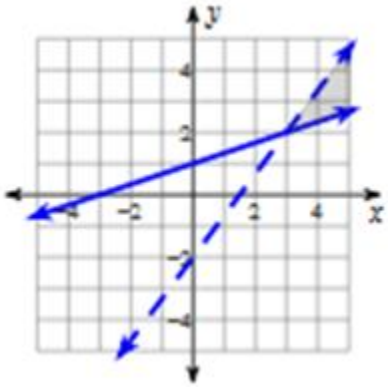
A. (1, –4)

B (–1, 4)

C. (–1, –4)

D. (4, –1)

14 Which ordered pair is in the solution set of the system of linear inequalities graphed below?



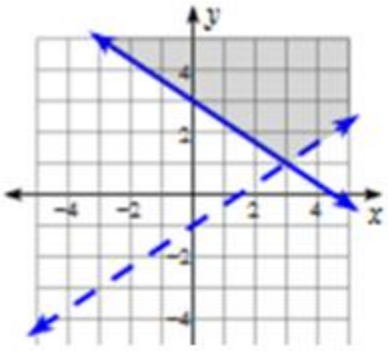
A. (3, 2)

B (–5, 7)

C. (4, 3)

D. (5, 5)

15 Which ordered pair is in the solution set of the system of linear inequalities graphed below?



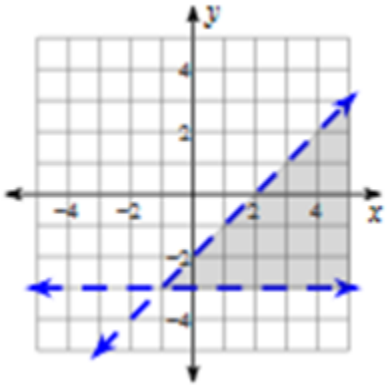
A. (3, 4)

B (3, 1)

C. (5, 1)

D. (4, 1)

16 Which ordered pair is in the solution set of the system of linear inequalities graphed below?



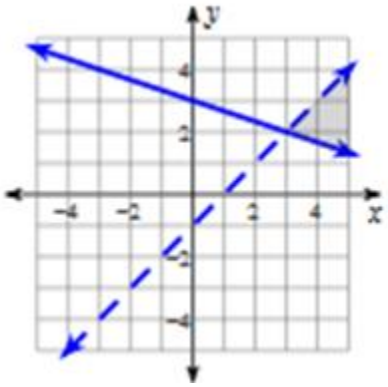
A. (1, –4)

B (4, –1)

C. (–1, 4)

D. (4, –3)

17 Which ordered pair is in the solution set of the system of linear inequalities graphed below?



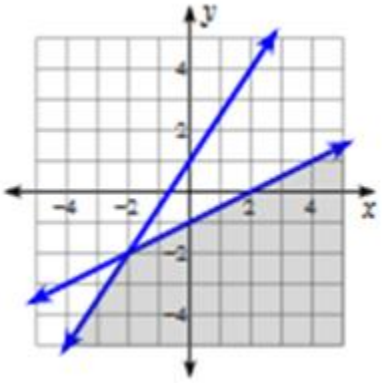
A. (4, 3)

B (3, 2)

C. (5, 3)

D. (4, 3)

18 Which ordered pair is in the solution set of the system of linear inequalities graphed below?



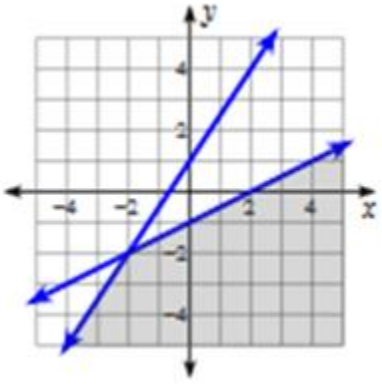
A. (1, –4)

B (–2, –1)

C. (0, 0)

D. (–4, –2)

19 Which ordered pair is in the solution set of the system of linear inequalities graphed below?



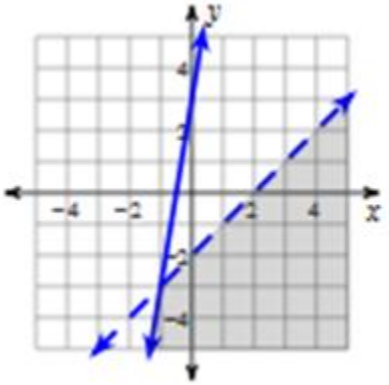
A. (1, –4)

B (–5, 7)

A. (5, 3)

D. (–7, –2)

20 Which ordered pair is in the solution set of the system of linear inequalities graphed below?



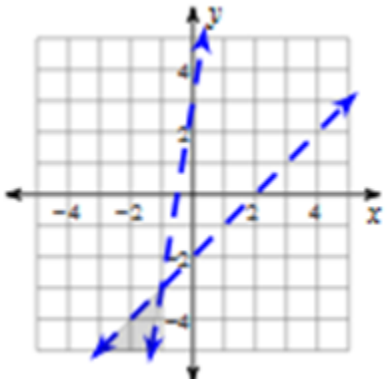
A. (2, –2)

B (–2, 2)

C. (0, –2)

D. (2, 0)

21 Which ordered pair is in the solution set of the system of linear inequalities graphed below?



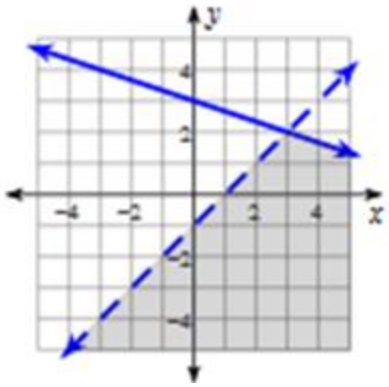
A. (2, –4)

B (–2, –5)

C. (–2, –2)

D. (–1, –2)

22 Which ordered pair is in the solution set of the system of linear inequalities graphed below?



A. (3, 2)

B (4, 1)

C. (0, –1)

D. (–2, –1)

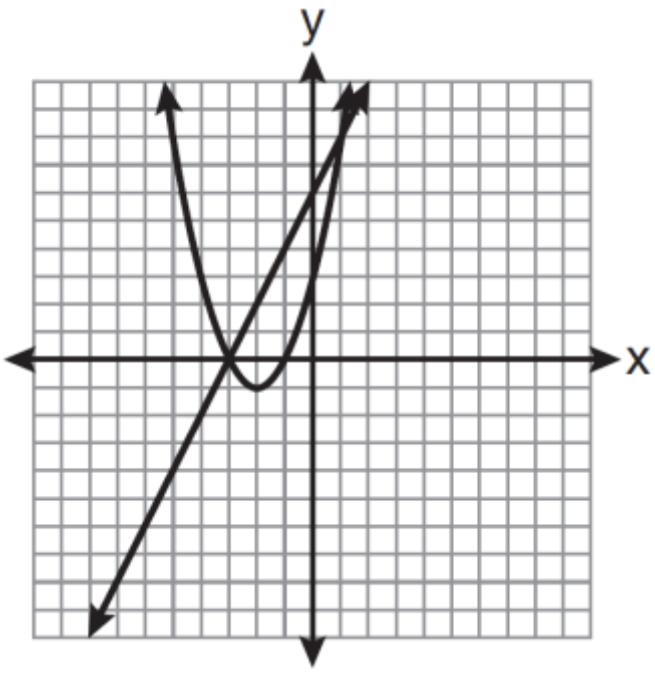
Name: ANSWER KEY Date:

1	C	11	D
2	C	12	C
3	D	13	B
4	A	14	C
5	B	15	A
6	C	16	B
7	B	17	C
8	D	18	A
9	B	19	A
10	A	20	A
		21	B
		22	B

Linear-Quadratic System of Equations (Graphs)

Name: Date:

1 Which ordered pair is a solution of the system of equations shown in the graph below?



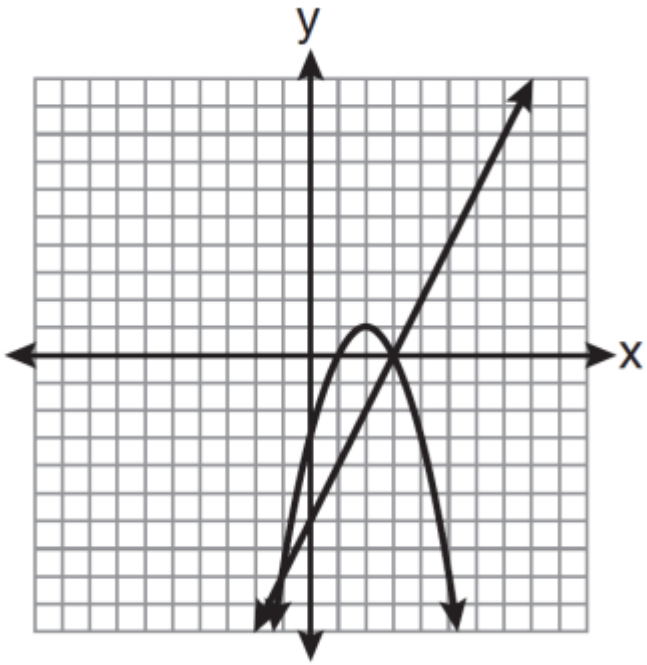
A) (1, –8)

B) (1, 8)

C) (8, 1)

D) (0, –2)

2 Which ordered pair is a solution of the system of equations shown in the graph below?



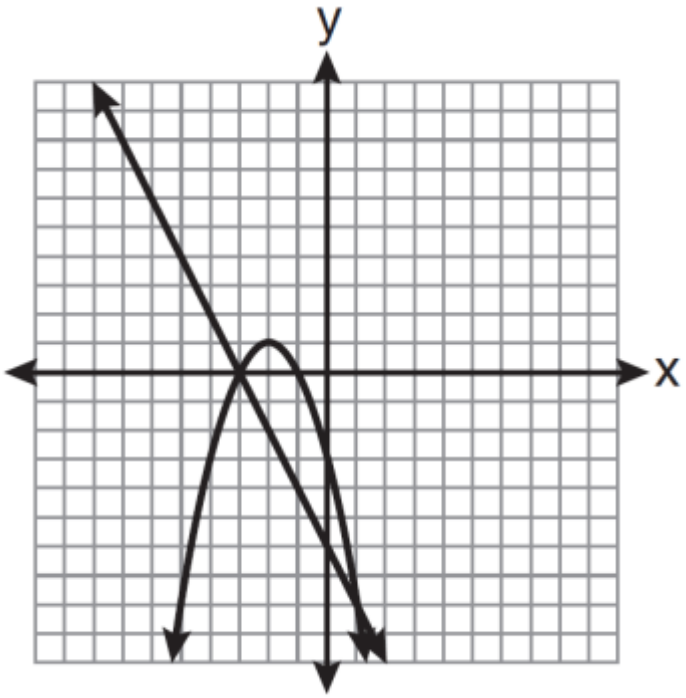
A) (3, 0)

B) (0, –3)

C) (–5, 0)

D) (0, 3)

3 Which ordered pair is a solution of the system of equations shown in the graph below?



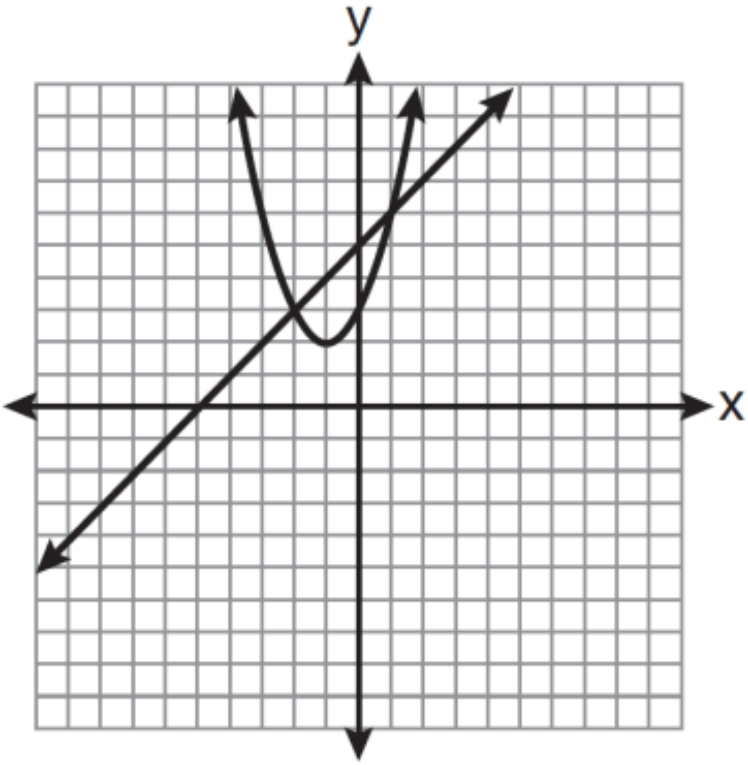
A) (–3, 0)

B) (0, –3)

C) (0, –5)

D) (0, 3)

4 Which ordered pair is a solution of the system of equations shown in the graph below?



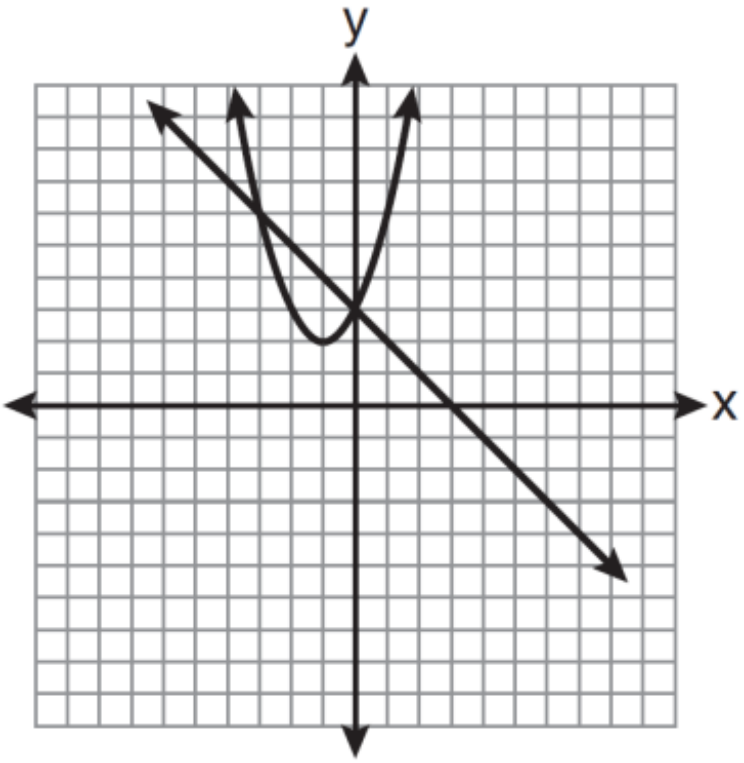
A) (3, –2)

B) (0, 5)

C) (0, 3)

D) (–2, 3)

5 Which ordered pair is a solution of the system of equations shown in the graph below?



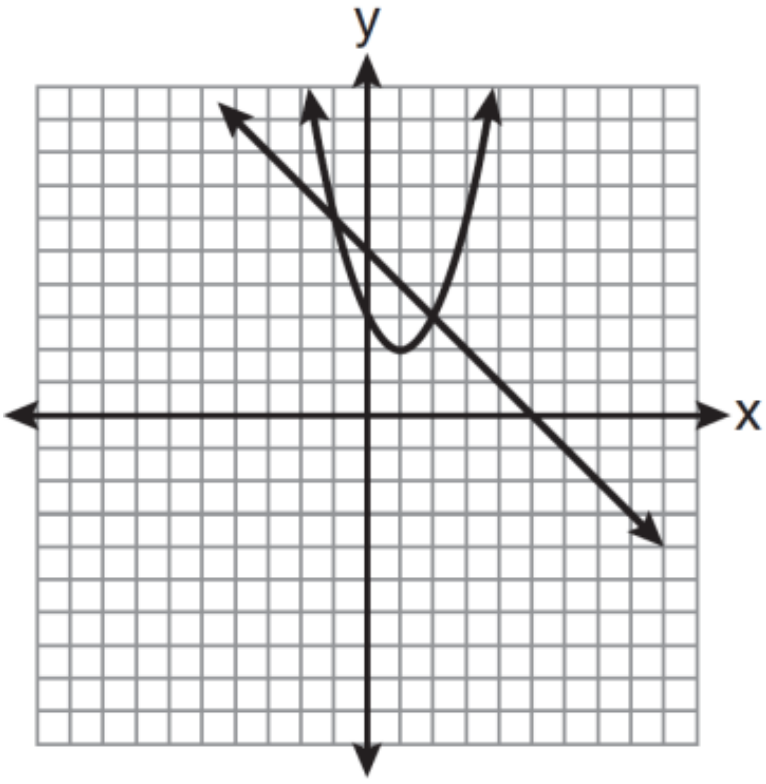
A) (–3, 0)

B) (3, 0)

C) (0, 3)

D) (0, –3)

6 Which ordered pair is a solution of the system of equations shown in the graph below?



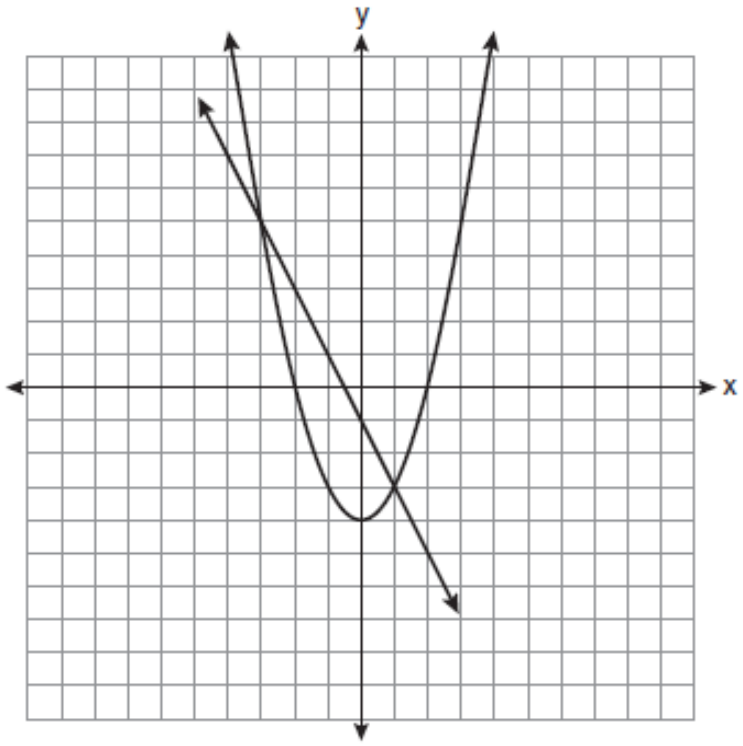
A) (1, –6)

B) (1, 6)

C) (–6, 1)

D) (–1, 6)

7 Which ordered pair is a solution of the system of equations shown in the graph below?



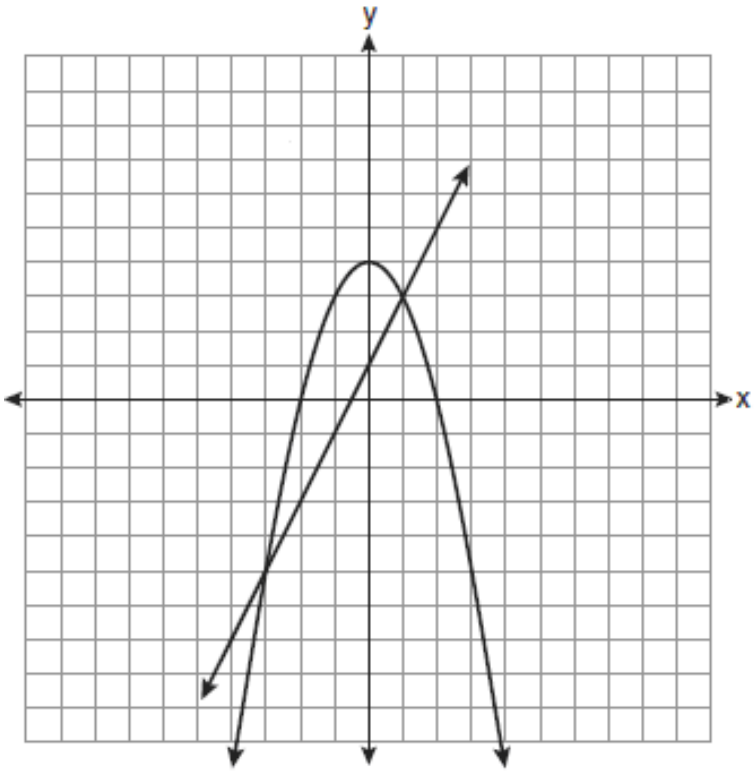
A) (1, –3)

B) (1, 3)

C) (–3, 1)

D) (–1, 3)

8 Which ordered pair is a solution of the system of equations shown in the graph below?



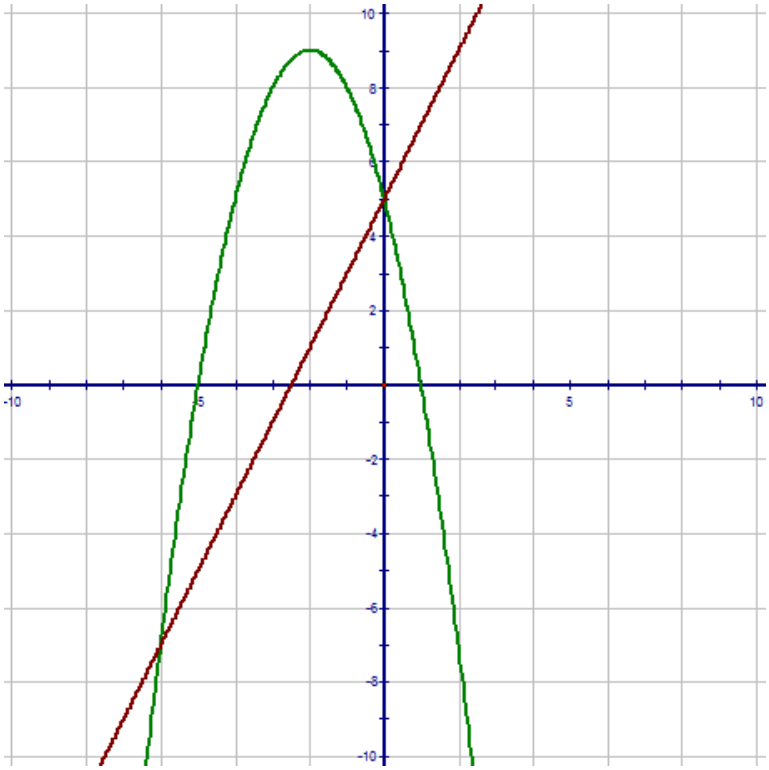
A) (–3, 1)

B) (–3, 5)

C) (0, –1)

D) (–3, –5)

9 Which ordered pair is a solution of the system of equations shown in the graph below?



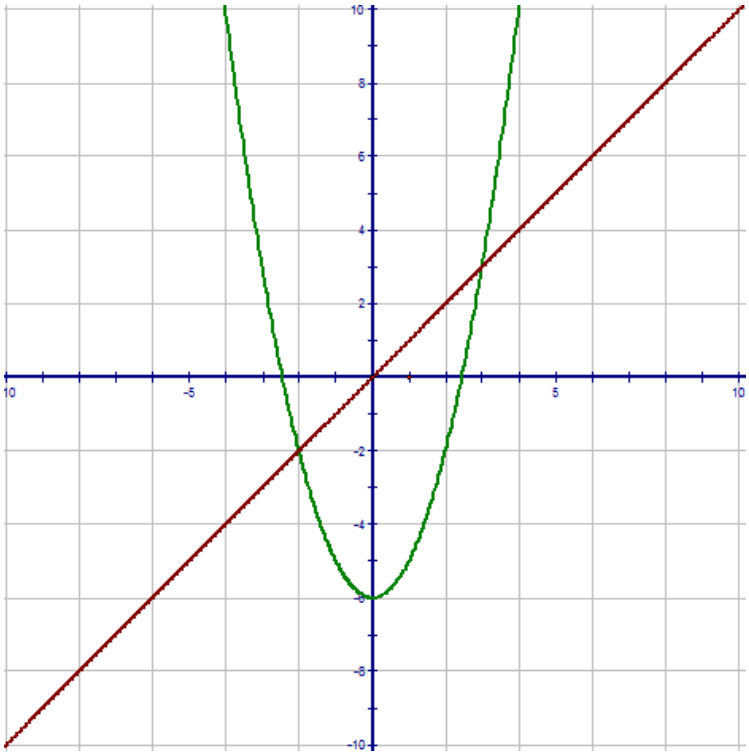
A) (–6, 7)

B) (6, –7)

C) (0, 5)

D) (5, 0)

10 Which ordered pair is a solution of the system of equations shown in the graph below?



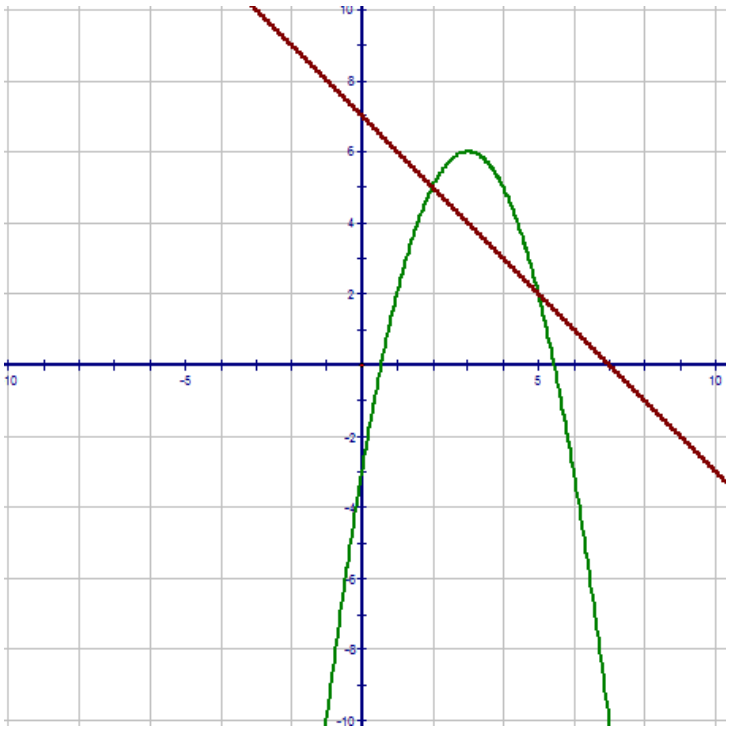
A) (–2, 2)

B) (–2, –2)

C) (2, –2)

D) (2, 2)

11 Which ordered pair is a solution of the system of equations shown in the graph below?



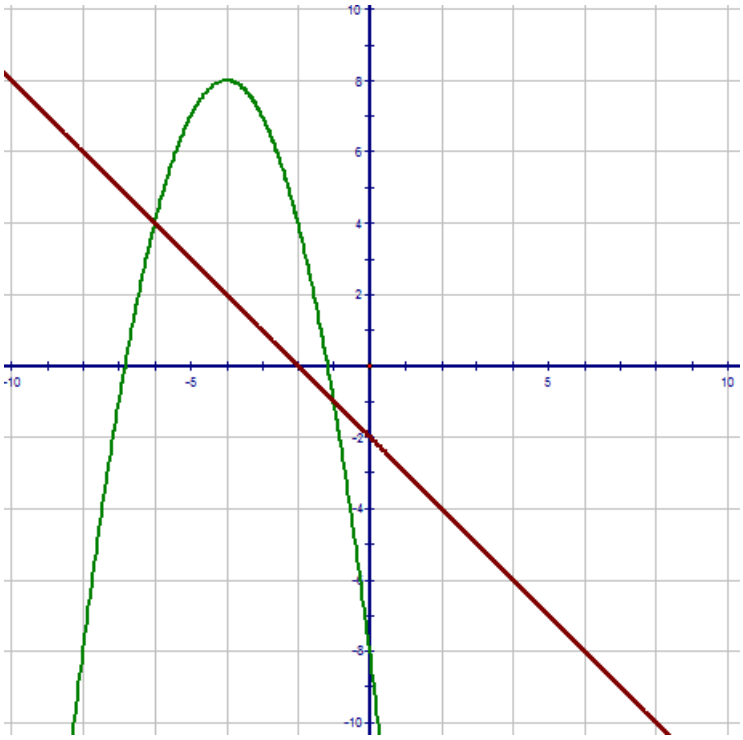
A) (–5, 2)

B) (2, 5)

C) (5, –2)

D) (–5, –2)

12 Which ordered pair is a solution of the system of equations shown in the graph below?



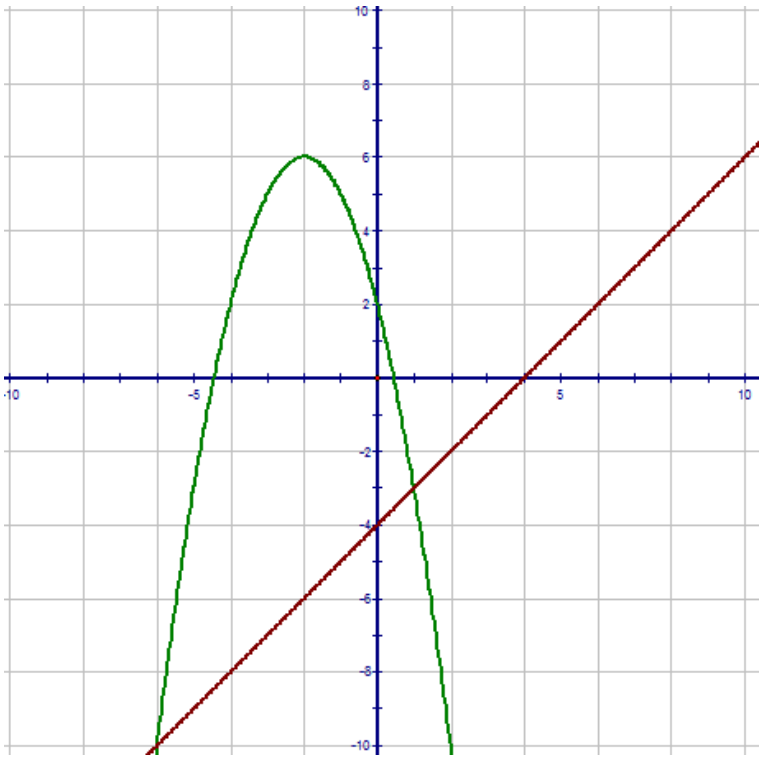
A) (4, –6)

B) (–6, 4)

C) (4, 6)

D) (–6, –4)

13 Which ordered pair is a solution of the system of equations shown in the graph below?



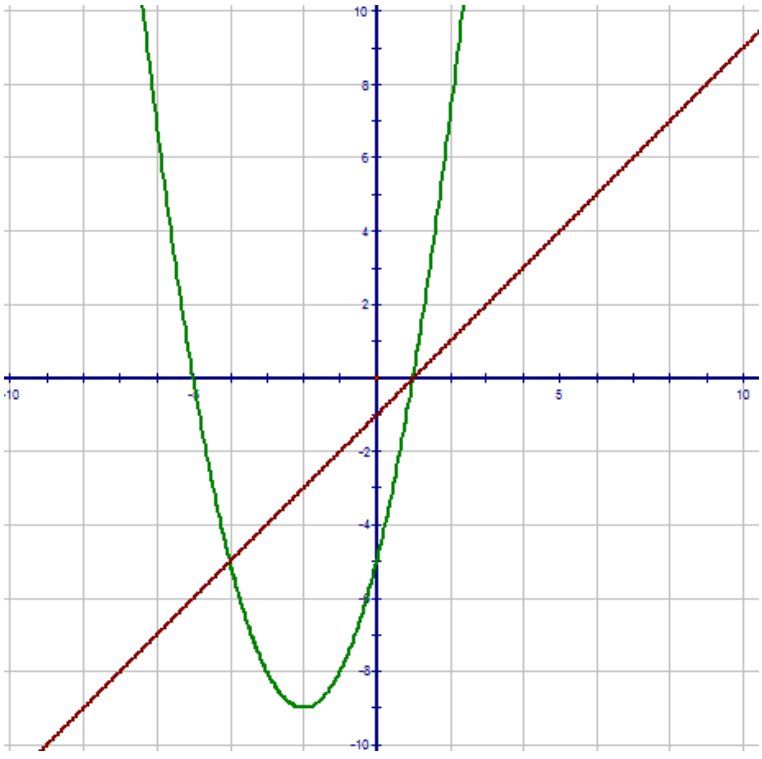
A) (1, –3)

B) (1, 3)

C) (3, 1)

D) (–1, 3)

14 Which ordered pair is a solution of the system of equations shown in the graph below?



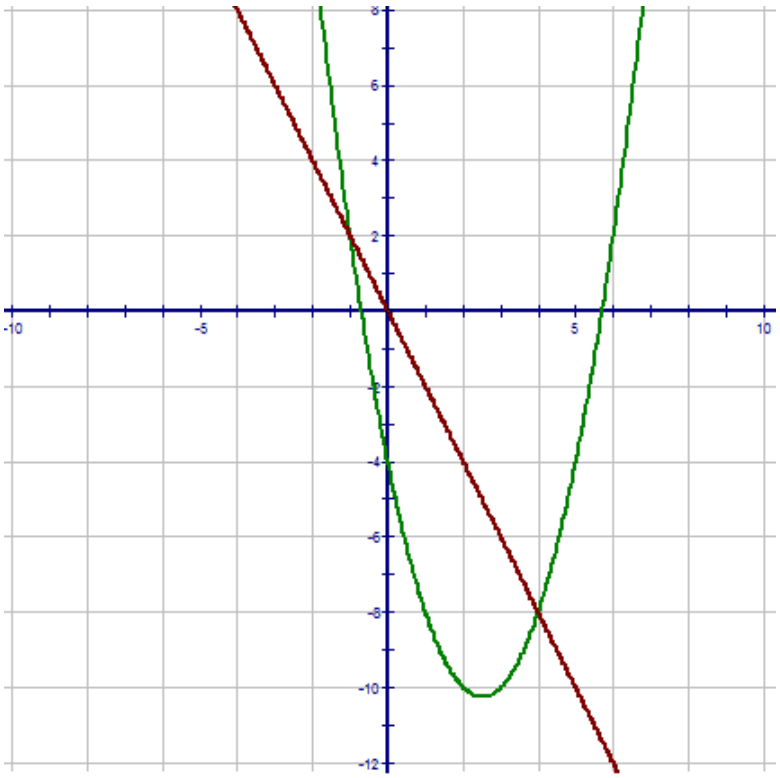
A) (5, –4)

B) (–4, –5)

C) (4, –5)

D) (–5, –4)

15 Which ordered pair is a solution of the system of equations shown in the graph below?



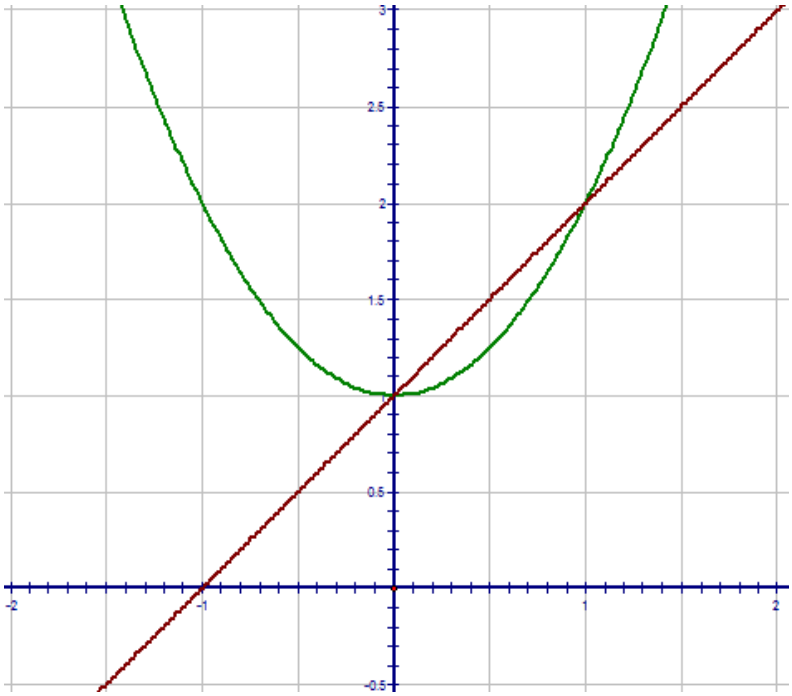
A) (4, –8)

B) (4, 8)

C) (–8, 4)

D) (8, –4)

16 Which ordered pair is a solution of the system of equations shown in the graph below?



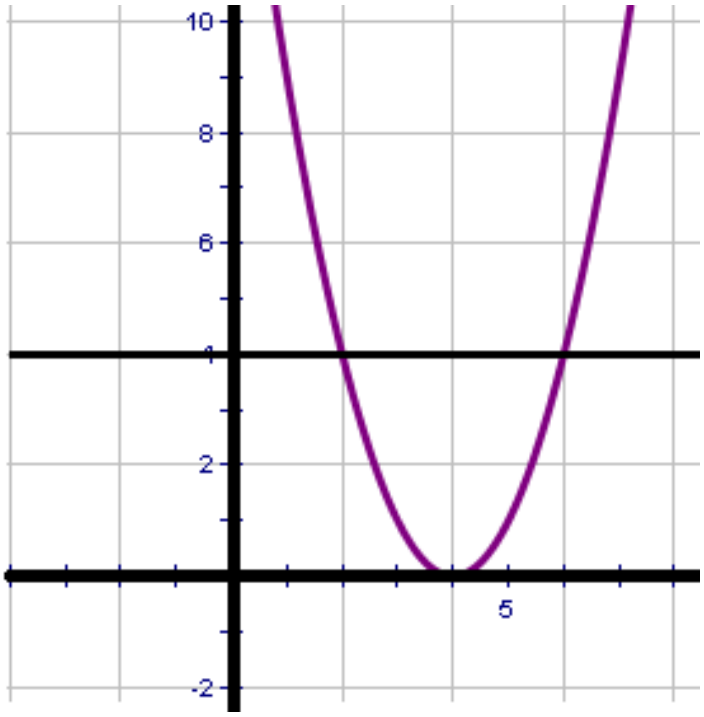
A) (1, 0)

B) (–1, 0)

C) (0, 1)

D) (0, –1)

17 Which ordered pair is a solution of the system of equations shown in the graph below?



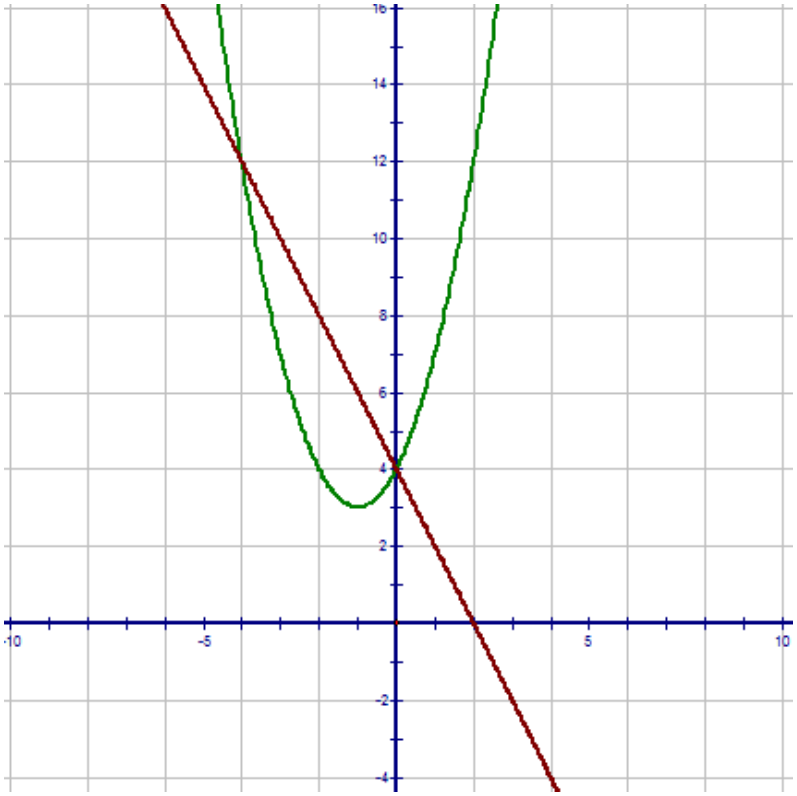
A) (2, –4)

B) (2, 4)

C) (4, 2)

D) (–2, 4)

18 Which ordered pair is a solution of the system of equations shown in the graph below?



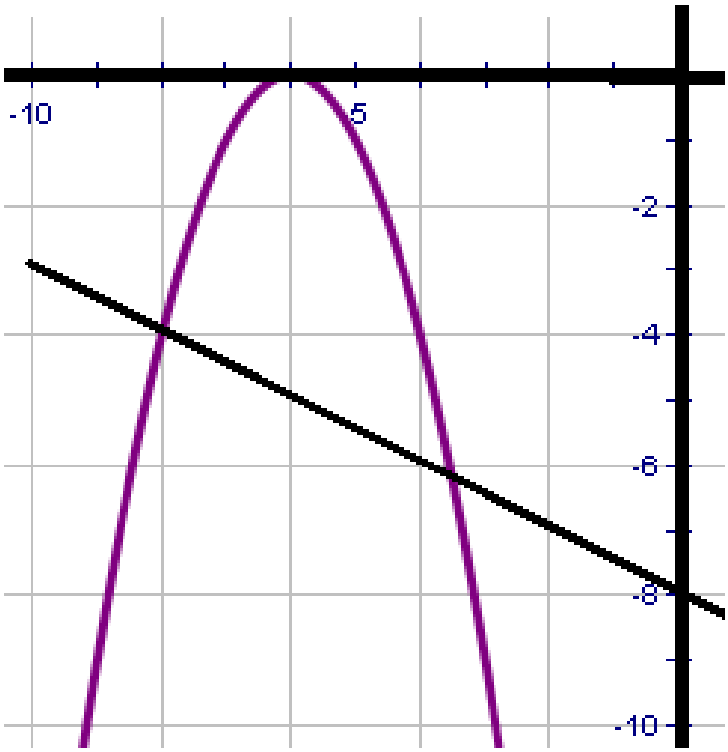
A) (–4, –12)

B) (4, –12)

C) (–4, 12)

D) (4, 12)

19 Which ordered pair is a solution of the system of equations shown in the graph below?



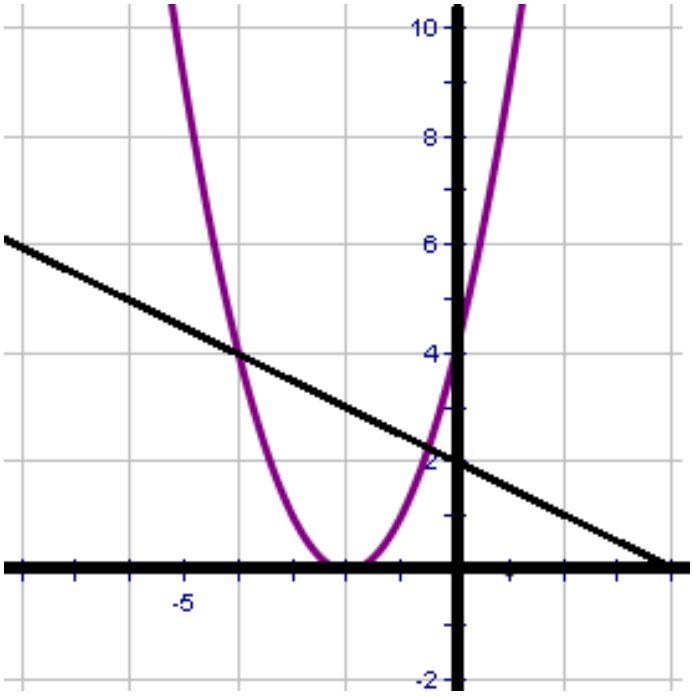
A) (–4, –8)

B) (–8, –4)

C) (–8, 4)

D) (4, –8)

20 Which ordered pair is a solution of the system of equations shown in the graph below?



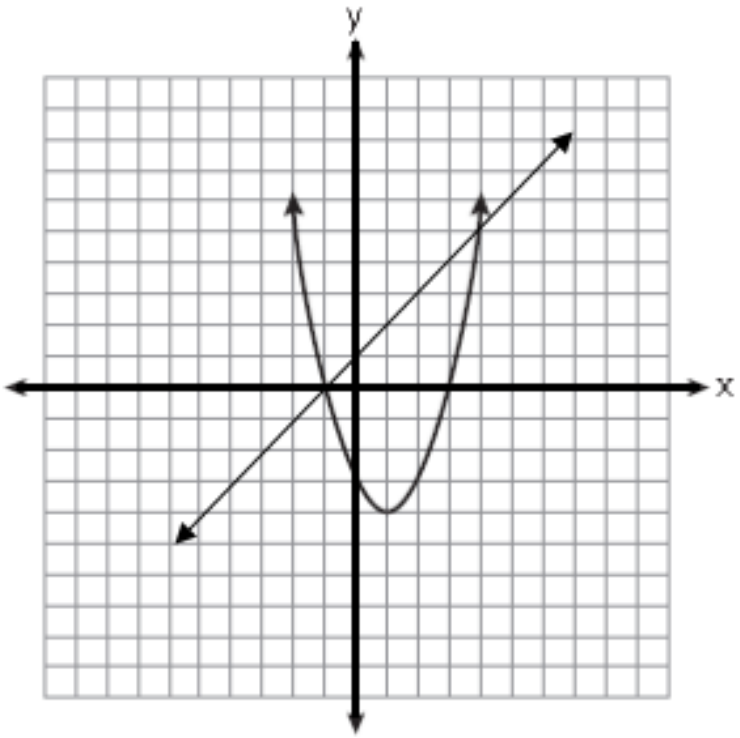
A) (4, –4)

B) (–4, 4)

C) (–4, –4)

D) (4, 4)

21 Which ordered pair is a solution of the system of equations shown in the graph below?



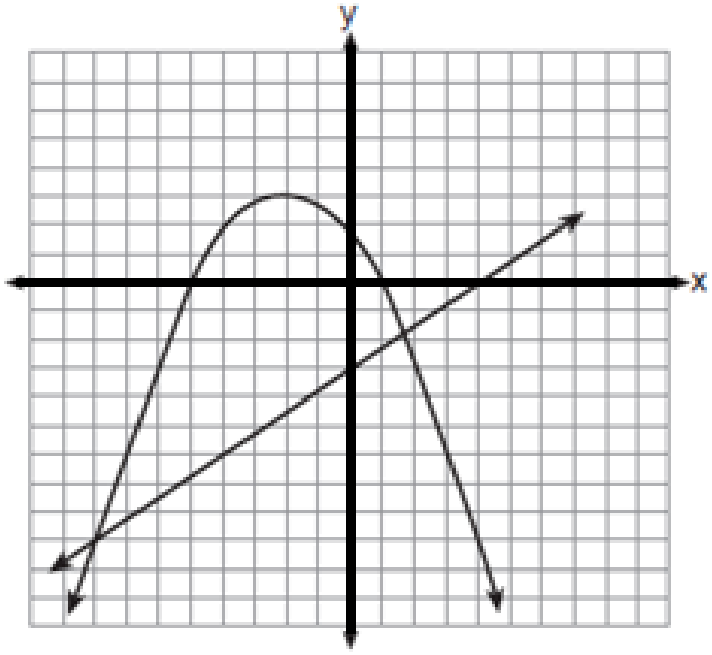
A) (0, –1)

B) (1, 0)

C) (0, 1)

D) (–1, 0)

22 Which ordered pair is a solution of the system of equations shown in the graph below?



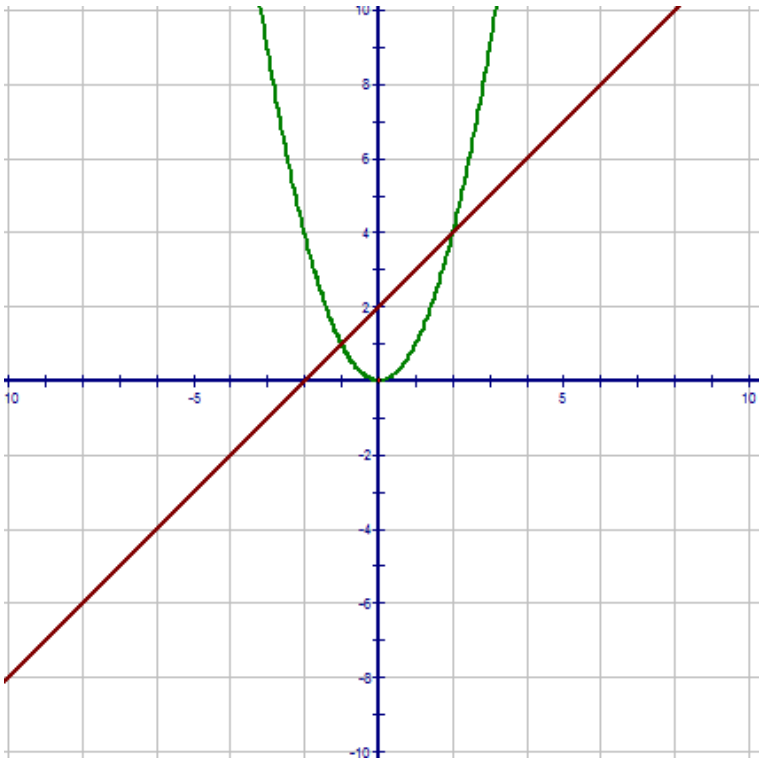
A) (–9, –8)

B) (–8, –9)

C) (–8, 9)

D) (9, –8)

23 Which ordered pair is a solution of the system of equations shown in the graph below?



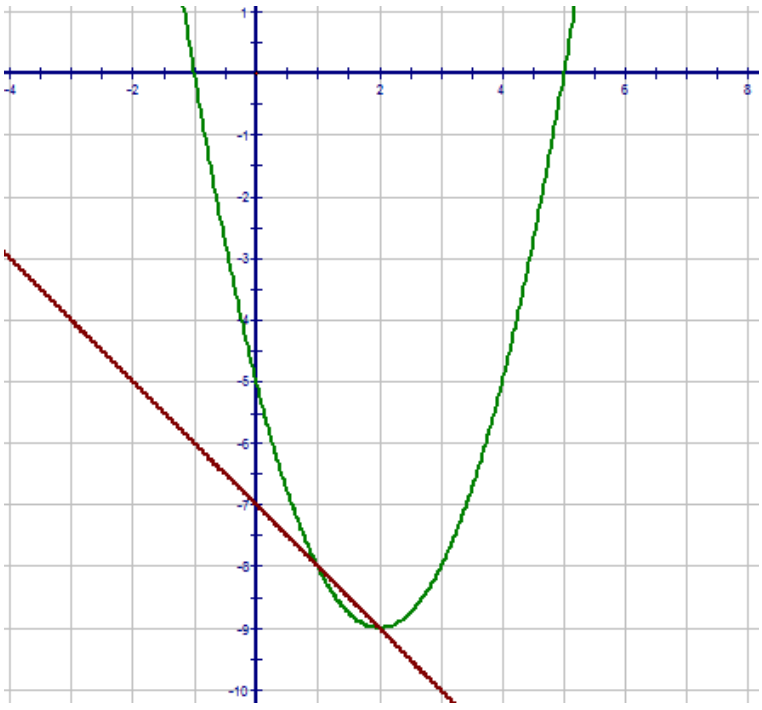
A) (4, –2)

B) (2, 4)

C) (1,1)

D) (1, –1)

24 Which ordered pair is a solution of the system of equations shown in the graph below?



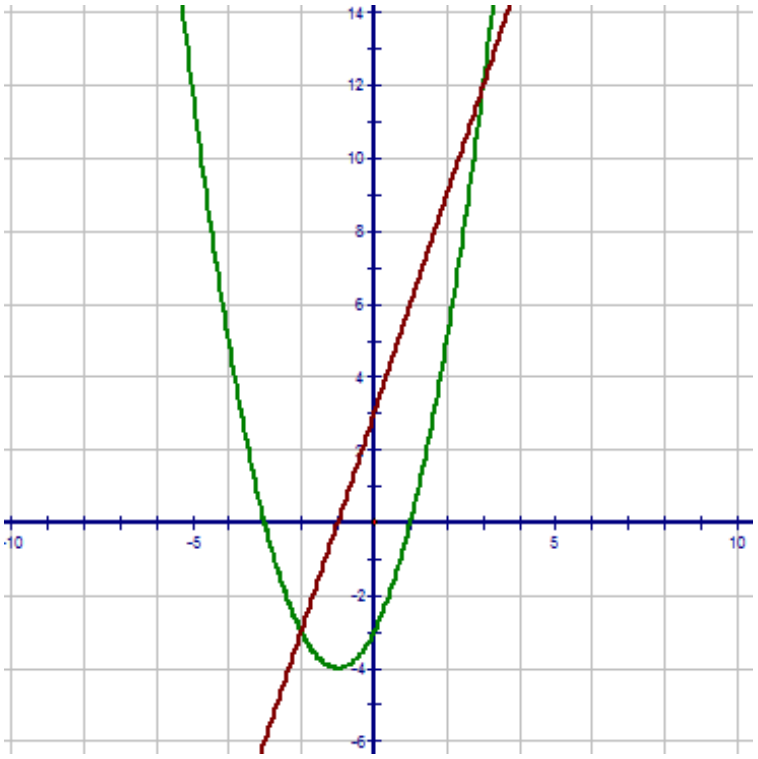
A) (1, –8)

B) (1, 8)

C) (8,1)

D) (9, –2)

25 Which ordered pair is a solution of the system of equations shown in the graph below?



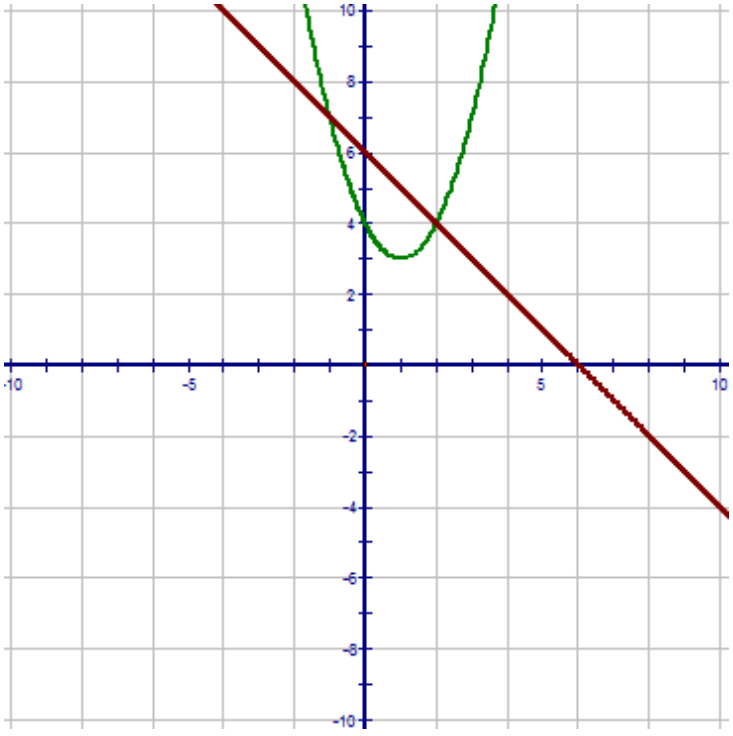
A) (–3, –2)

B) (–2, –3)

C) (2, 3)

D) (3, 2)

26 Which ordered pair is a solution of the system of equations shown in the graph below?



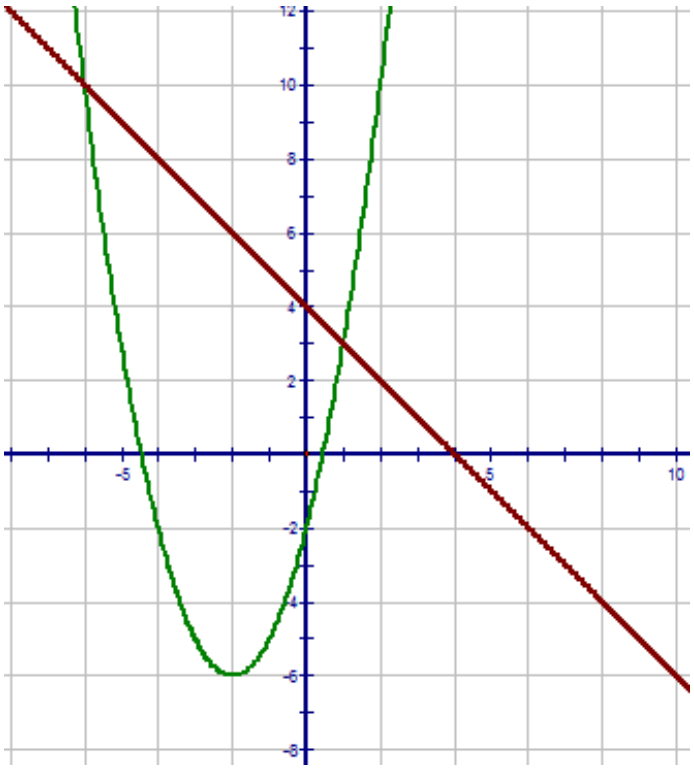
A) (1, –7)

B) (–1, 7)

C) (–7, 1)

D) (7, –1)

27 Which ordered pair is a solution of the system of equations shown in the graph below?



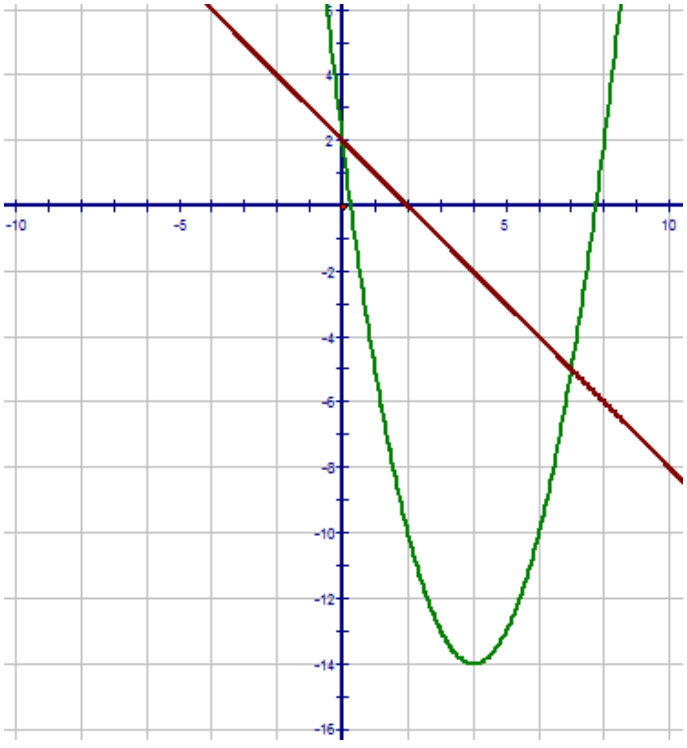
A) (6, –10)

B) (10, –6)

C) (–6, 10)

D) (–10, 6)

28 Which ordered pair is a solution of the system of equations shown in the graph below?



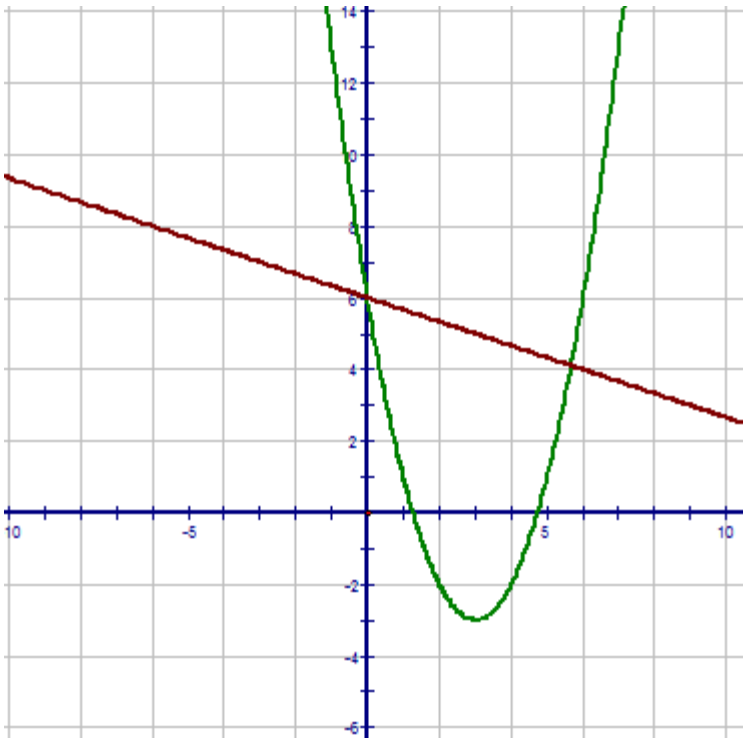
A) (7, –5)

B) (5, –7)

C) (–5, 7)

D) (–7, 5)

29 Which ordered pair is a solution of the system of equations shown in the graph below?



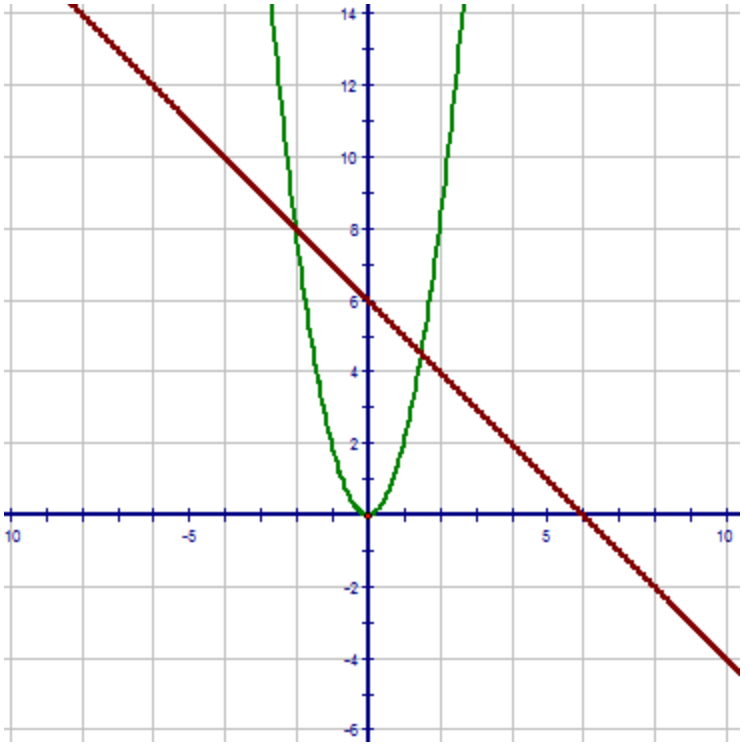
A) (6, 0)

B) (0, –6)

C) (0,6)

D) (–6, 0)

30 Which ordered pair is a solution of the system of equations shown in the graph below?



A) (–2, –8)

B) (–2, 8)

C) (–8, 2)

D) (8, –2)

Name: ANSWER KEY Date:

1	B	11	B	21	D
2	A	12	B	22	B
3	A	13	A	23	B
4	D	14	B	24	A
5	C	15	A	25	B
6	D	16	C	26	B
7	A	17	B	27	C
8	D	18	C	28	A
9	C	19	B	29	C
10	B	20	B	30	B

Name: Date:

Solve the system of equations for values of x only.

1. $y = x^2 + 3$
   $y = 2x + 3$

   A) $x = 2$ and $x = 3$
   B) $x = -2$ and $x = -3$
   C) $x = 1$ and $x = 4$
   D) $x = 0$ and $x = 2$

2. $y = x^2 + 2x + 1$
   $y = 2x + 5$

   A) $x = 2$ and $x = 3$
   B) $x = -2$ and $x = 3$
   C) $x = 2$ and $x = -2$
   D) $x = 1$ and $x = 5$

3. $y = x^2 + 4x + 1$
   $y = 2x + 1$

   A) $x = -2$ and $x = 0$
   B) $x = 2$ and $x = -4$
   C) $x = 1$ and $x = 3$
   D) $x = 1$ and $x = 2$

4. $y = x^2 - x$
   $y = x + 3$

   A) $x = 1$ and $x = -3$
   B) $x = -1$ and $x = 3$
   C) $x = 5$ and $x = 4$
   D) $x = 0$ and $x = 2$

5. $y = x^2 - 2x + 1$
$y = 3x + 7$

A) $x = 1$ and $x = -7$
B) $x = -1$ and $x = 7$
C) $x = 3$ and $x = -2$
D) $x = -3$ and $x = 2$

6. $y = x^2 + 3x + 1$
$y = x + 9$

A) $x = 1$ and $x = -9$
B) $x = -1$ and $x = 9$
C) $x = 2$ and $x = -4$
D) $x = -2$ and $x = 4$

7. $y = x^2 - 8x + 15$
$y = -x + 5$

A) $x = -2$ and $x = -5$
B) $x = 2$ and $x = 5$
C) $x = 1$ and $x = 7$
D) $x = -1$ and $x = -7$

8. $y = x^2 - 5x + 6$
$y = -2x + 10$

A) $x = 1$ and $x = -4$
B) $x = -1$ and $x = 4$
C) $x = 5$ and $x = -3$
D) $x = -5$ and $x = 3$

9. $y = x^2 - 4x - 5$
$y = -6x + 10$

A) $x = -6$ and $x = 4$
B) $x = 6$ and $x = -4$
C) $x = 5$ and $x = -3$
D) $x = -5$ and $x = 3$

10. $y = x^2 - x - 3$
$y = 3x + 2$

A) $x = 1$ and $x = -5$
B) $x = -1$ and $x = 5$
C) $x = 2$ and $x = -3$
D) $x = -2$ and $x = 3$

11. $y = x^2 - 3x - 8$
$y = -4x + 4$

A) $x = -3$ and $x = 4$
B) $x = 3$ and $x = -4$
C) $x = 1$ and $x = 8$
D) $x = -1$ and $x = -8$

12. $y = x^2 + 8x + 3$
$y = x - 7$

A) $x = 1$ and $x = 7$
B) $x = 2$ and $x = 5$
C) $x = -2$ and $x = -5$
D) $x = -1$ and $x = -7$

13. $y = x^2 - 2x + 8$
$y = 3x + 2$

A) $x = -1$ and $x = 8$
B) $x = 1$ and $x = -8$
C) $x = 2$ and $x = 3$
D) $x = -2$ and $x = -3$

14. $y = x^2 - 5x + 6$
$y = 2x - 6$

A) $x = 3$ and $x = 4$
B) $x = -1$ and $x = -4$
C) $x = 2$ and $x = -3$
D) $x = -2$ and $x = 3$

15. $y = x^2 - 3x + 6$
$y = 3x - 2$

A) $x = -2$ and $x = -4$
B) $x = 2$ and $x = 4$
C) $x = 3$ and $x = 6$
D) $x = -3$ and $x = -6$

16. $y = x^2 + 4x - 15$
$y = 3x + 5$

A) $x = -3$ and $x = 10$
B) $x = 3$ and $x = -10$
C) $x = -4$ and $x = 5$
D) $x = 4$ and $x = -5$

17. $y = x^2 - 6x - 5$
$y = 2x - 20$

A) $x = -6$ and $x = 2$
B) $x = 3$ and $x = 5$
C) $x = -3$ and $x = -5$
D) $x = 6$ and $x = -2$

18. $y = x^2 + 3x - 8$
$y = 4x + 4$

A) $x = 4$ and $x = -3$
B) $x = -4$ and $x = 3$
C) $x = 1$ and $x = -8$
D) $x = -1$ and $x = 8$

19. $y = x^2 - 2x - 15$
$y = 2x + 6$

A) $x = -2$ and $x = -6$
B) $x = 2$ and $x = 6$
C) $x = -3$ and $x = 7$
D) $x = 3$ and $x = -7$

20. $y = x^2 + 5x - 7$
$y = 3x + 1$

A) $x = -1$ and $x = 3$
B) $x = 1$ and $x = -3$
C) $x = 2$ and $x = -4$
D) $x = -2$ and $x = 4$

Linear-Quadratic System of Equations

Name: Date:

Solve the system of equations for values of *x* only.

1	D	11	B
2	C	12	C
3	A	13	C
4	B	14	A
5	D	15	B
6	C	16	D
7	B	17	B
8	A	18	A
9	D	19	C
10	B	20	C