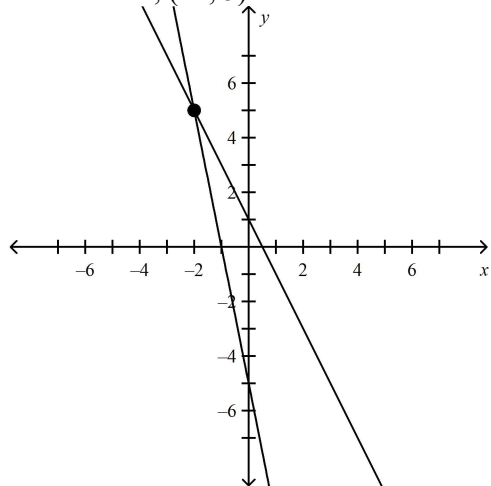


## Algebra Unit 6 Study Guide--Systems of Equations Answer Section

1. ANS:

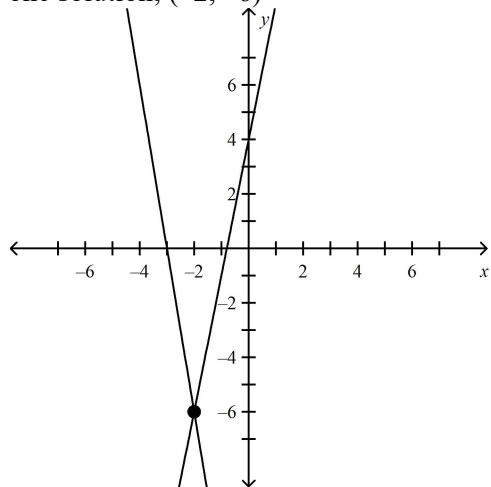
one solution;  $(-2, 5)$



REF: Lesson 6-1

2. ANS:

one solution;  $(-2, -6)$



REF: Lesson 6-1

3. ANS:

$(-26, -23)$

REF: Lesson 6-2

4. ANS:

$(-4, -6)$

REF: Lesson 6-2

5. ANS:  
(-12, -6)

REF: Lesson 6-2

6. ANS:  
(-1, -2)

REF: Lesson 6-3

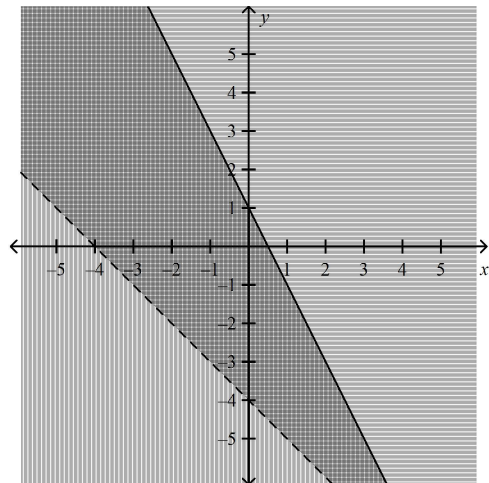
7. ANS:  
(-12, -13)

REF: Lesson 6-4

8. ANS:  
(-2, 1)

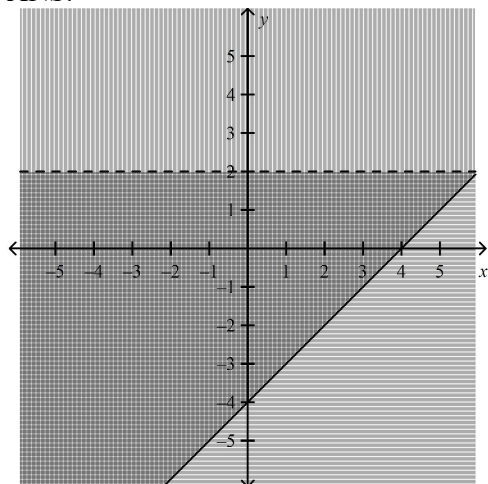
REF: Lesson 6-4

9. ANS:



REF: Lesson 6-8

10. ANS:



REF: Lesson 6-8

11. ANS: A

12. ANS: B

13. ANS: D

14. ANS: A

15. ANS: D

16. ANS: D

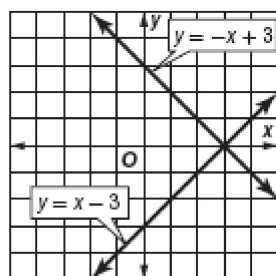
17. ANS:

186 student tickets; 135 adult tickets

18. ANS:

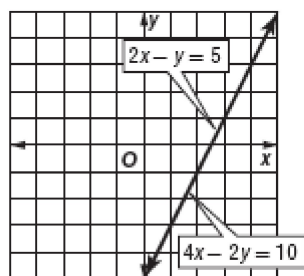
14 dimes; 19 nickels

19. ANS:



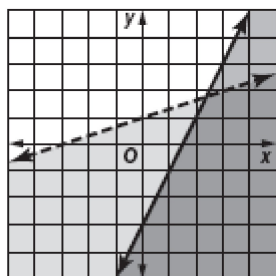
one solution; (3, 0)

20. ANS:



infinitely many solutions

21. ANS:  
substitution;  $(-2, -5)$
22. ANS:  
elimination with subtraction;  $(-1, 1)$
23. ANS:  
18 and  $-2$
24. ANS:  
16 dimes; 7 quarters
25. ANS:



26. ANS:  
10 lb of \$2.45 mix; 20 lb of \$2.30 mix
27. ANS:  
14 hens and 18 pigs

$$x + y = 32$$

$$2x + 4y = 100$$

Substitute  $32 - x$  for  $y$  in the second equation and solve for  $x$ . Substitute that value into the first equation and solve for  $y$ .

REF: Lesson 6-2

28. ANS:  
40, 14

$$x + y = 54$$

$$x - y = 26$$

Eliminate one variable by adding the two equations. Solve for  $x$  and then substitute that value into one of the equations to find the value of  $y$ .

REF: Lesson 6-3

29. ANS:  
5, 7

$$5x + y = 32$$

$$3x - y = 8$$

Eliminate one variable by adding the two equations. Solve for  $x$  and then substitute that value into one of the equations to find the value of  $y$ .

REF: Lesson 6-3

30. ANS:

Jack: 33 stamps; Dylan: 13 stamps

$$x - y = 20$$

$$x + y = 46$$

Eliminate one variable by adding the two equations. Solve for  $x$  and then substitute that value into one of the equations to find the value of  $y$ .

REF: Lesson 6-3