

## Chapter 6-B Test Review

- *Review for Chapter 6B is due on the day of the test.*
- *Review will not be graded unless answers are written on separate paper.*
- *In order to be eligible to retest, this review must be complete, accurate, and turned in*
- *All homework assignments must be turned in. Missing assignments will void retest eligibility.*

Solve each system of equations by graphing, substitution, and elimination. Note your answers should be the same. Express your answer as an ordered pair.

1. 
$$\begin{cases} 3x + 4y = -36 \\ -2x + 4y = -16 \end{cases}$$

2. 
$$\begin{cases} 3x + y = -3 \\ y = x + 5 \end{cases}$$

3. 
$$\begin{cases} 4x - 4y = -16 \\ x - 2y = -12 \end{cases}$$

Choose the best method to solve the system and solve.

4. 
$$\begin{cases} 3x - 6y = 12 \\ 2x + 6y = -12 \end{cases}$$

5. 
$$\begin{cases} 3x - 2y = 15 \\ x - 2y = 5 \end{cases}$$

6. 
$$\begin{cases} 2x - 5y = -7 \\ 5x - 3y = 11 \end{cases}$$

7. 
$$\begin{cases} y = -x + 8 \\ x + y = 7 \end{cases}$$

8. Janice is going on vacation and needs to leave her dog at a kennel. Nguyen's Kennel charges \$15 per day plus \$20 for a processing fee. The Pup Palace Kennel charges \$12 per day, and has a \$35 processing fee. After how many days is the Pup Palace Kennel cheaper than Nguyen's Kennel?
9. The Fun Guys game rental store charges an annual fee of \$5 plus \$5.50 per game rented. The Game Bank charges an annual fee of \$17 plus \$2.50 per game. For how many game rentals will the cost be the same at both stores? What is that cost?
10. At the local pet store, zebra fish cost \$2.10 each and neon tetras cost \$1.85 each. If Marsha bought 13 fish for a total cost of \$25.80, not including tax, how many of each type of fish did she buy?
11. Eric has some quarters and nickels in his pocket. He has 8 more nickels than quarters. The total value is \$3.70. Write a system of equations that can be used to find the number of quarters and nickels Eric has. How many quarters and nickels does Eric have?
12. A) The length of a rectangle is 3 centimeters more than 3 times the width. If the perimeter of the rectangle is 46 centimeters, find the dimensions of the rectangle. SOLVE  
B) The sum of the perimeters of two different squares is 54 centimeters, and the difference between their perimeters is 14 centimeters. If  $x$  represents the side length of the smaller square, write a system of equations that could be used to find the dimensions of the squares. DO NOT SOLVE

1. **Classify: independent/consistent, dependent/consistent, or inconsistent,** 2. **graph and**  
3. **give the number of solutions; 1 solution, infinitely many, or no solutions:**

13. 
$$\begin{cases} x - 8y = 6 \\ 2x - 16y = 12 \end{cases}$$

14. 
$$\begin{cases} -6x - 3y = 18 \\ -y = -2x + 2 \end{cases}$$

15. Tell whether the ordered pair  $(5, -3)$  is a solution of the system 
$$\begin{cases} -3x + 2y = -21 \\ -x - y = -2 \end{cases}$$

16. Tell whether  $(8, 5)$  is a solution of  $y > x + 7$ . 17. Tell whether  $(5, 6)$  is a solution of  $y < 5x + 8$ .

18. Graph the solutions of the linear inequality  $-8x + 2y > -6$ .

19. Tony has \$18 to buy apples and bananas for a fruit salad. Apples cost \$2 per pound and bananas cost \$1 per pound. Write and graph an inequality to describe the situation. Then give two possible combinations of pounds of apples and bananas that Tony can buy.

20. Graph the inequality  $0 > 9 + 6x - 9y$ .

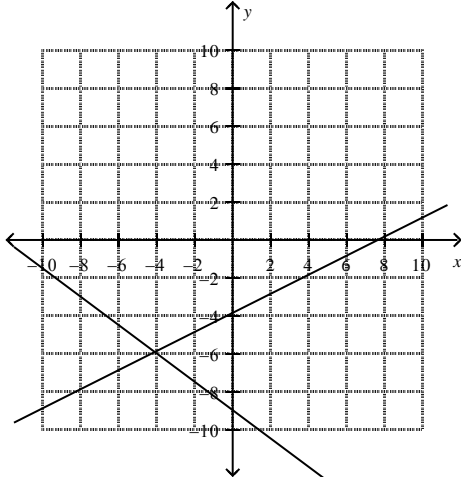
**Spiral exam:** will consist of multiple choice and short answer questions selected from chapters 1 through 5. Use old chapter reviews, the final exam review, and chapter reviews out of the text book. (note: all reviews are available on my web site)**remember:** direct variation, domain & range, parent linear function, function notation

# Chapter 6-B Test Review January 2012

## Answer Section

### SHORT ANSWER

1. ANS:  
 $(-4, -6)$



OBJ: 6-1.2 Solving a System of Linear Equations by Graphing  
 STA: A.8.B

2. ANS:  
 $(-2, 3)$

OBJ: 6-2.1 Solving a System of Linear Equations by Substitution  
 STA: A.8.B

3. ANS:  
 $(4, 8)$

OBJ: 6-2.2 Using the Distributive Property

4. ANS:  
 $(0, -2)$

OBJ: 6-3.1 Elimination Using Addition  
 STA: A.8.B

5. ANS:  
 $(5, 0)$

OBJ: 6-3.2 Elimination Using Subtraction

6. ANS:  
 $(4, 3)$

OBJ: 6-3.3 Elimination Using Multiplication First  
 STA: A.8.B

7. ANS:  
 This system has no solutions.

OBJ: 6-4.1 Systems with No Solution  
 STA: A.8.C

8. ANS:  
 The Pup Palace Kennel is cheaper than Nguyen's Kennel after 5 days.

OBJ: 6-2.3 Application  
 STA: A.8.A

9. ANS:  
 4 games; \$27

OBJ: 6-1.3 Problem-Solving Application  
 STA: A.8.A

10. ANS:  
 7 zebra fish, 6 neon tetras

OBJ: 6-3.4 Application  
 STA: A.8.A

11. ANS:  
 11 quarters and 19 dimes

STA: A.8.A

12. ANS:  
 A) length = 5 cm; width = 18 cm  
 B)  $4x+4y=54$ ;  $4x-4y=14$

OBJ: 7-2.1 Using Substitution  
 STA: TX TEKS A.8A | TX  
 TEKS A.8B

13. ANS:  
 This system is consistent. It has infinitely many solutions.

OBJ: 6-4.3 Classifying Systems of Linear Equations  
 STA: A.8.C

14. ANS:  
 STA: A.8.B  
 inconsistent ; no solutions

STA: A.8.C

15. ANS:  
 yes

OBJ: 6-1.1 Identifying Solutions of a System  
 STA:

16. ANS:  
 STA: A.8.C  
 A.8.B  
 No,  $(8, 5)$  is not a solution of  $y > x + 7$ .

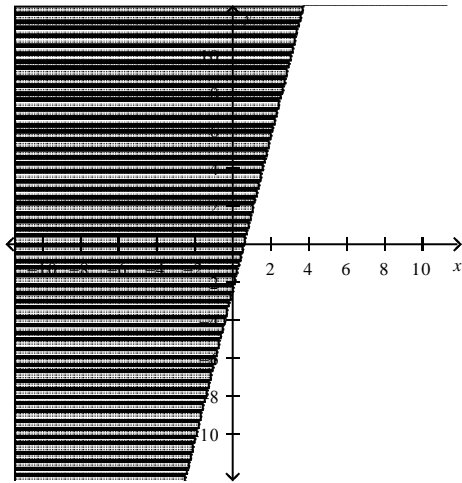
OBJ: 6-5.1 Identifying Solutions of Inequalities  
 STA: A.7.B

17. ANS:  
 Yes,  $(5, 6)$  is a solution of  $y < 5x + 8$ .

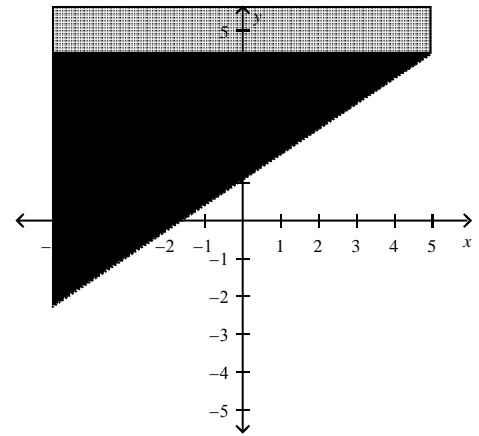
OBJ: 6-5.1 Identifying Solutions of Inequalities  
 STA:

A.7.B

18. ANS:



20. ANS:

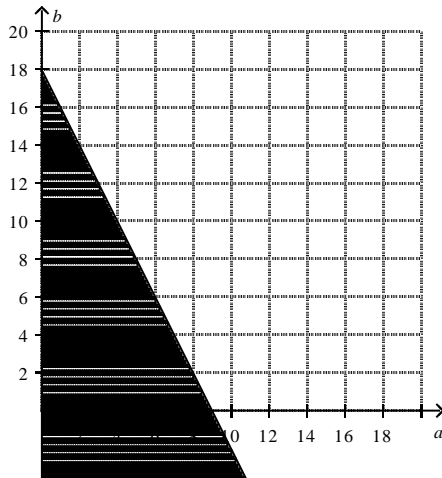


STA: A.7.B

OBJ: 6-5.2 Graphing Linear Inequalities in Two Variables  
STA: A.7.B

19. ANS:

$2a + b \leq 18$ ; 2 pounds of apples and 12 pounds of bananas or 4 pounds of apples and 2 pounds of bananas.



OBJ: 6-5.3 Application  
STA: A.8.C