

**LESSON**  
**7-2**

**Practice A**  
**Solving Linear Inequalities**

Use substitution to tell whether the ordered pair is a solution of the given inequality.

1.  $(3, 4); y > x + 2$

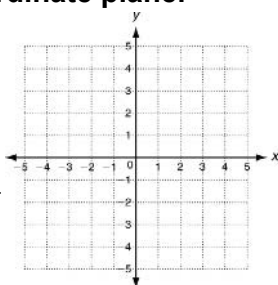
2.  $(4, 2); y \leq 2x - 3$

3.  $(2, -1); y < -x$

\_\_\_\_\_

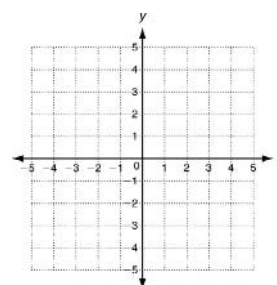
Rewrite each linear inequality in slope-intercept form. Then graph the solutions in the coordinate plane.

4.  $y - x \leq 3$



\_\_\_\_\_

5.  $6x + 2y > -2$



\_\_\_\_\_

6. Trey is buying peach and blueberry yogurt cups. He will buy at most 8 cups of yogurt. Let  $x$  be the number of peach yogurt cups and  $y$  be the number of blueberry yogurt cups he buys.

a. Write an inequality to describe the situation.

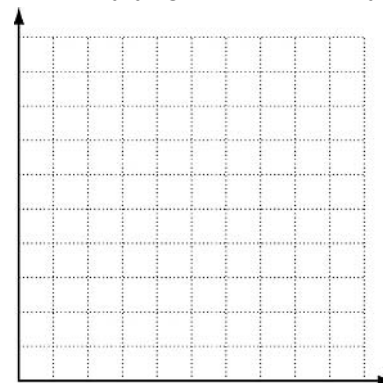
\_\_\_\_\_

b. Graph the solutions.

c. Give two possible combinations of peach and blueberry yogurt that Trey can choose.

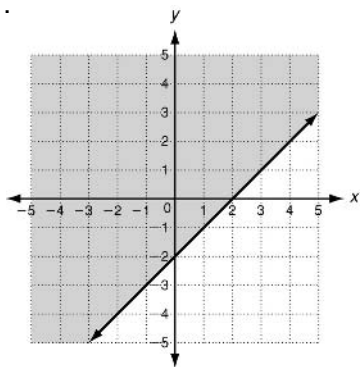
\_\_\_\_\_

\_\_\_\_\_



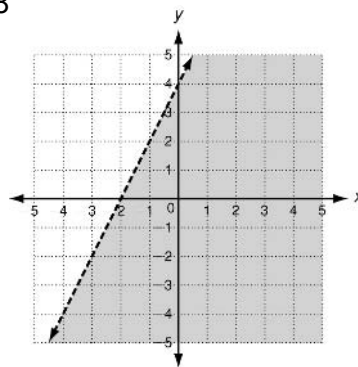
Write an inequality to represent each graph.

7.



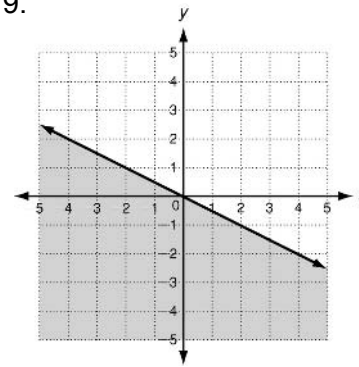
\_\_\_\_\_

8



\_\_\_\_\_

9.



\_\_\_\_\_

## 7-2 SOLVING LINEAR INEQUALITIES

5. consistent and dependent;  
infinitely many solutions
6. consistent and independent;  
one solution
7. consistent and independent;  
one solution; (0, 8)
8. consistent and dependent;  
infinitely many solutions

### Challenge

1. Start -1 -2 -7 -13 -14 -19 - Finish
2. Start -6 -10 -15 -21 -17 -23 - Finish

### Problem Solving

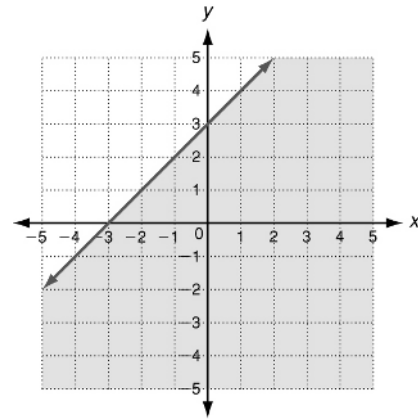
1. No; the graphs are parallel lines so there is no solution.
2. consistent and independent;  
100 mi and \$65
3. consistent and dependent;  
infinitely many solutions
4. Yes;  
at 600 hours.
5. A 6. H
7. C 8. J

### Reading Strategies

1. inconsistent
2. infinitely many
3. infinitely many
4. consistent, independent
5. one
6. inconsistent;  
0;  
parallel lines
7. consistent, dependent;  
infinitely many;  
coincident lines
8. consistent, independent;  
1;  
intersecting lines

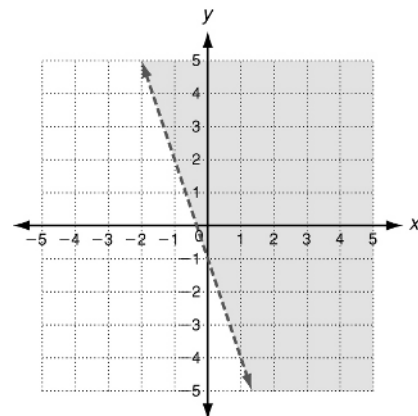
### Practice A

1. no 2. yes
3. no
- 4.



$$y \leq x + 3$$

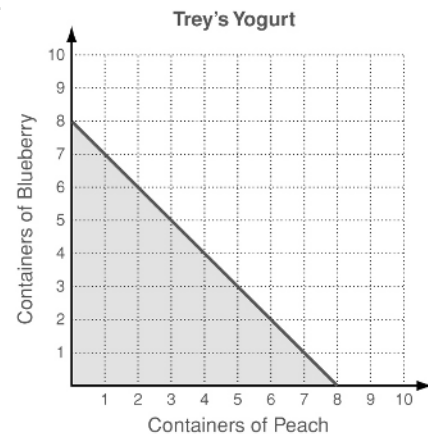
5.



$$y > -3x - 1$$

6. a.  $x + y \leq 8$

b.



c. Possible answer: 2 peach, 6 blueberry  
or 4 peach, 3 blueberry

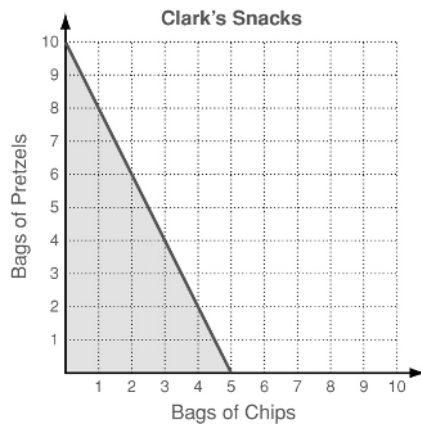
7.  $y \geq x - 2$

8.  $y < 2x + 4$

9.  $y \leq -\frac{1}{2}x$

7. a. Let  $x =$  chips,  $y =$  pretzels,  $4x + 2y \leq 20$

b.



c. Possible answer: 3 chips, 4 pretzels or 4 chips, 1 pretzel

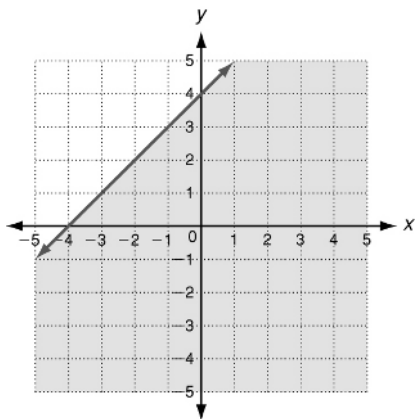
**Practice B**

1. yes

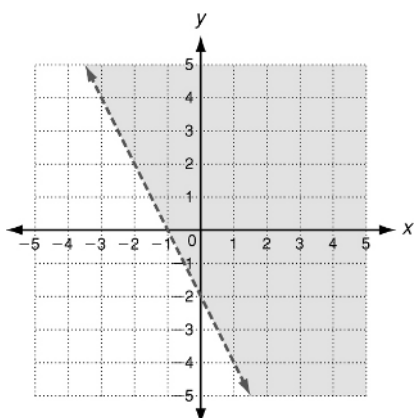
2. no

3. yes

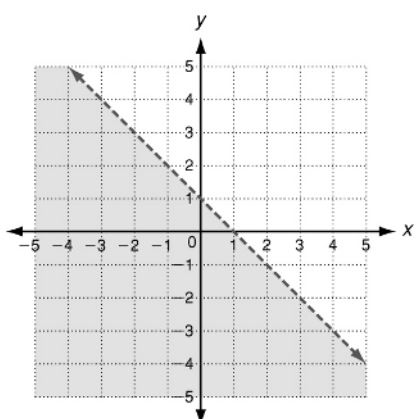
4.



5.



6.



8.  $y \geq \frac{1}{2}x - 2$

9.  $y < 3x + 1$

10.  $y \leq -\frac{3}{2}x + 4$

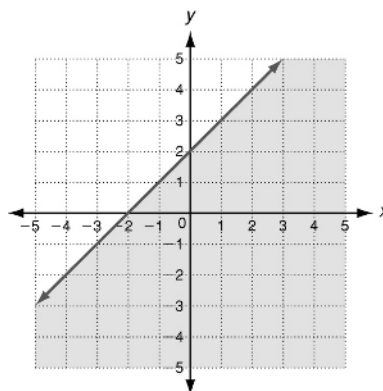
**Practice C**

1. no

2. no

3. yes

4.



5.

