

Name: \_\_\_\_\_ Period: \_\_\_\_\_

Score: \_\_\_\_\_ / \_\_\_\_\_

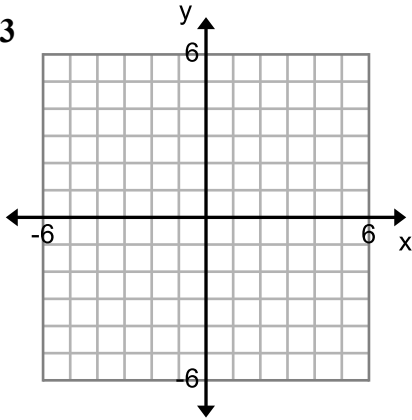
\_\_\_\_\_ % = \_\_\_\_\_

**HW 6-1 HONORS: Graphing Inequalities & Writing Equations**

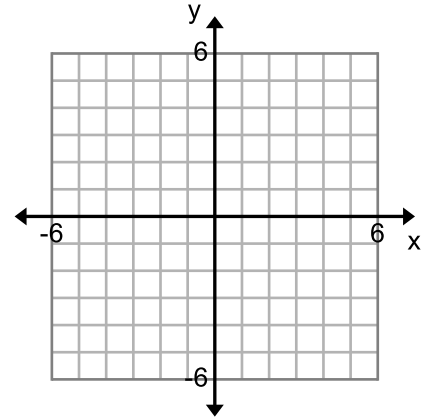
1. When you go to Little Caesar's to buy food for a family party, you find out they charge \$5 for each pizza and \$2 for an order of breadsticks. You spend \$50 on the food (before tax).
  - a. Write an equation to represent this situation.
  
  
  - b. List three different combinations of pizza and breadsticks you could have purchased.
  
2. You purchase a car for \$6000. The car depreciates in value by 8% each year. Write an equation to represent this situation.
  
  
3. You purchase movie tickets for a group to attend the first showing of a movie. It costs \$10 for each adult ticket and \$6.00 for each child ticket. You spent \$60 on the tickets (before tax).
  - a. Write an equation to represent this situation.
  
  
  - b. List three different combinations of child and adult tickets you could have purchased.
  
  
4. Dave is going on a backpacking trip. He has packed 62 pounds of food for the trip in his backpack. To ensure he has enough food for the trip he is eating 3 pounds of food each day. Write an equation to represent this situation.
  
  
5. The city of Pythagoras started with a population of 34,000 people. The city was growing at a rate of 5% each year. Write an equation to represent this situation.
  
  
6. Becca is saving for a trip this summer. She starts a savings account with \$20. She earns \$5 per week in allowance that she plans on putting into the account. Write an equation to represent this situation.

Sketch a graph of the linear inequality.

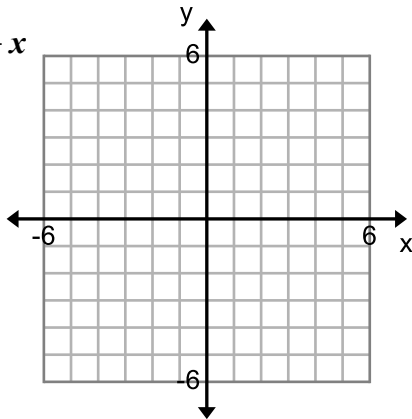
7.  $y > -3$



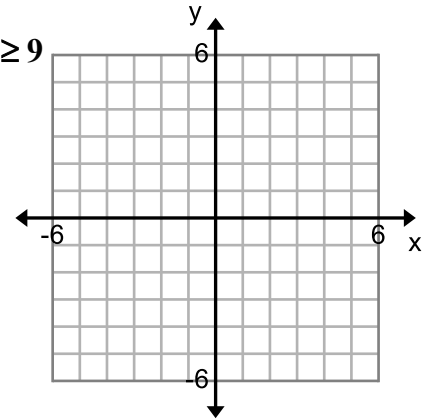
11.  $x \geq 1$



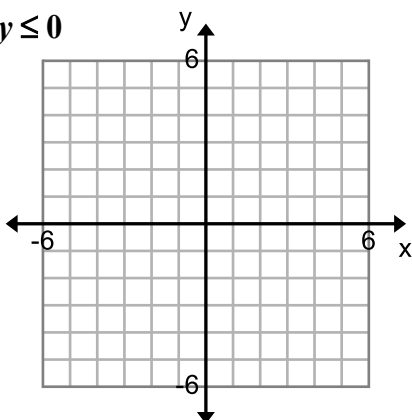
8.  $y \leq \frac{3}{4}x$



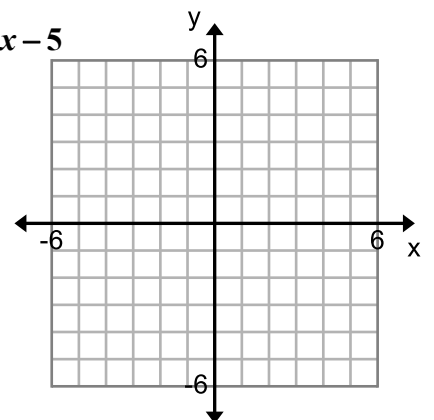
12.  $7x - 3y \geq 9$



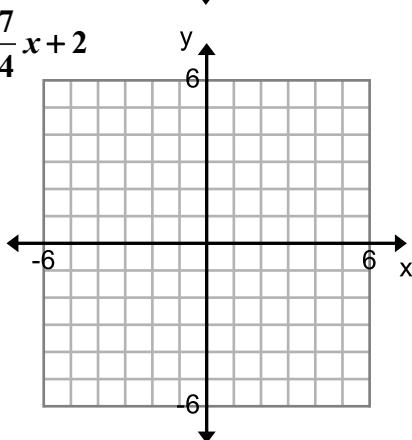
9.  $x + 3y \leq 0$



13.  $y > -\frac{1}{5}x - 5$



10.  $y \geq \frac{7}{4}x + 2$



14.  $x + 4y \geq -4$

