Review – Chapter 7

1. Identify three points that are solutions to each system.





1. Write a system of linear inequalities that is represented by the graph.



1. Tell whether the graph of each inequality would be represented with a dashed line or solid line.

 

1. A company produces CDs and DVDs. There is an expected demand of at least 5000 CDs and 8000 DVDs each day. A total of at most 20,000 items are produced each day. Write a system of linear inequalities to represent the constraints of this situation. Let x represent the number of CDs and y represent the number of DVDs.
2. Graph the solution to this system of linear inequalities.



1. A company prints flyers and brochures. It takes 2 minutes to print a flyer and 4 minutes to print a brochure. Each flyer uses 12 ounces of ink and each brochure uses 9 ounces of ink. The company has 2 hours available and 360 ounces of ink. The company makes a profit of $1 on each flyer and $2 on each brochure. The company cannot print a negative number of flyers or brochures.
2. Let x represent the number of flyers and y represent the number of brochures. Write a system of inequalities to represent the constraints of this problem situation.
3. Graph the system of inequalities. Then write and solve an equation to determine how many flyers and brochures the company should print in order to maximize their profit
4. Wanda sews small and large gloves. It takes her 45 minutes to sew a small pair of gloves and 120 minutes to sew a large pair of gloves. The costs of producing the gloves are $2 for a small pair and $4 for a large pair. Wanda has 16 hours available to sew gloves. The materials to make the gloves must cost at most $40. The system of linear inequalities represents this situation.



What does the solution (16, 2) represent?