

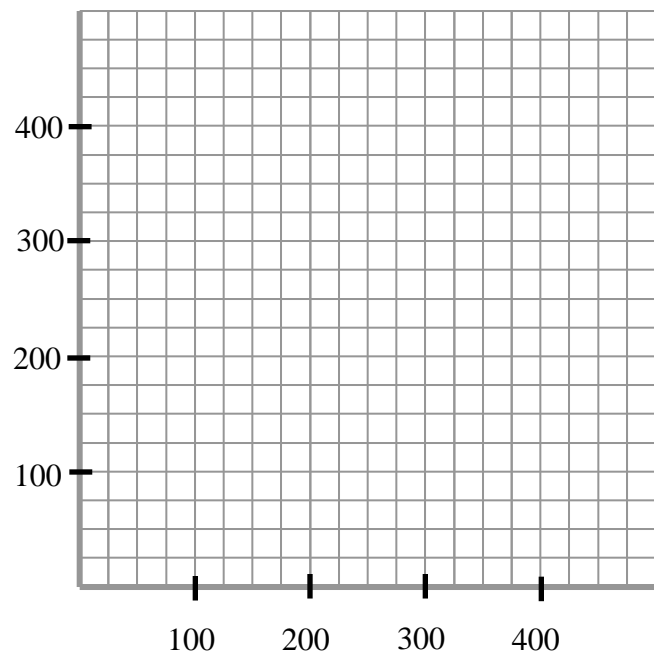
**Algebra 1 B**

Name \_\_\_\_\_

**Unit 7 Objective 5 Practice**

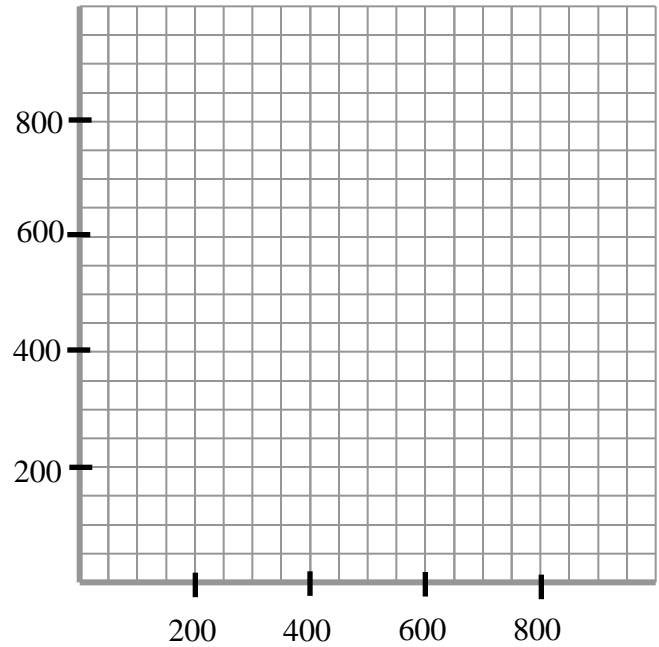
Period \_\_\_\_\_ Date \_\_\_\_\_

1. The sophomore class wants to raise money by selling t-shirts and sweatshirts. They want to sell at most 250 items and make at least \$1000. They will make a profit of \$5 on each t-shirt and \$10 on each sweatshirt.
  - a. Write a system of inequalities where  $x$  is the number of t-shirts sold and  $y$  is the number of sweatshirts sold.



- b. Graph the system. Be sure to label your axes.
  - c. Give three possible combinations of t-shirts and sweatshirts that could be sold to reach their goal of making at least \$1000.

2. An auditorium has a seating capacity of 500. For the school play an adult ticket costs \$8 and a student ticket costs \$4. The school wants to make at least \$2,400 to cover the expenses incurred to produce the play.
- a. Write a system of linear inequalities that where  $x$  is the number of adult tickets sold and  $y$  is the number of student tickets sold.



- b. Graph the solution. Be sure to label your axes.
- c. Give one possible combination of adult and student tickets that could be sold.