

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

## APPLICATIONS OF LINEAR SYSTEMS Exit Quiz

Solve the following verbal problems involving linear systems:

1. A chemist has one solution that is 50% basic and another solution that is 25% basic. How many liters of each type of basic solution should be combined to obtain 10 liters of 40% final solution?
2. 800 tickets were sold for a Rock Music Concert with a total revenue of \$7500. If adult tickets were sold for \$12 and students tickets were sold for \$8. How many of each type of ticket were sold?
3. The length of a rectangle is 5 cm less than two times its width. If the perimeter of the rectangle is 80 cm, which are the values of length and width?
4. The sum of two numbers is 12 and their difference is 6. Find the values of these numbers.
5. Joseph decided to divide his savings of \$12,000 in two investments, one in an account that pays 8% annual interest and the other a bond that pays 9% of annual interest. If his annual interest was \$1010, how much did he invest at each rate?