

## General Algebra 2 Worksheet #7 Unit 3 page 1 \_\_\_\_\_

Write a system of **two equations** with **two variables** and solve each of the following problems. Show your **complete** solution **neatly organized**.

1. The sum of two numbers is 50. The first number is five more than four times the second. What are the numbers?
2. The sum of two numbers is 60. The first number is 4 less than seven times the second. What are the numbers?
3. Mary invested \$2000, part at 5% per year and the rest at 8% per year. If the total interest for the year was \$136, then how much was invested at each rate?
4. Paul invested \$5000, part at 3% per year and the rest at 5% per year. If the total interest for the year was \$196, then how much was invested at each rate?

**General Algebra 2 Worksheet #7 Unit 3 page 2**

Write a system of **two equations** with **two variables** and solve each of the following problems. Show your **complete solution neatly organized**.

5. Josh invested \$3000, part at 3.5% per year and the rest at 6% per year. If the total interest for the year was \$135, then how much was invested at each rate?
6. A chemist has one solution that is 60% acid and another that is 20% acid. How much of each solution should she use to make 100cc of a solution that is 35% acid?
7. A chemist has one solution that is 45% alcohol and another that is 75% alcohol. How much of each solution should he use to make 60ml of a solution that is 65% alcohol?