**Solving Systems by the Substitution Method**

1. Solve the following systems of equations by the substitution method. Show your work.
2. 



1. 



1. 



1. To eliminate the problem of World Hunger we need to understand what constitutes nutritious meals. This is important in order to ensure that people eat the food they need to stay healthy. The average 128-pound person needs to consume about 36 grams of protein and 2,200 calories each day.

An egg has 6 grams of protein and 77 calories. A 6-ounce glass of goat’s milk has 8 grams of protein and 168 calories. If a person has enough eggs and goat’s milk each day, they will meet the required 36 grams of protein per day. How many eggs and how many 6-ounce glasses of goat’s milk will a person need to eat each day if they want their total protein intake to be 36 grams and their total calorie intake from these two sources to be 658 calories? (Assume that there are other foods available that do not contain protein but will supply the remaining calories needed.)

* + - 1. Develop an equation that represents the number of calories consumed from eggs and goat’s milk each day.
      2. Develop an equation that represents the amount of protein consumer from eggs and goat’s milk each day.
      3. Solve the system of equations using the substitution method. Explain what your solution represents in the context of the problem.

1. A serving of rice contains 251 calories, and a serving of beans has 227 calories. How many servings of rice and how many servings of beans will provide a total of 2,187 calories if the person eats twice as many servings of rice per day as beans?
2. Define your variables and then write an equation that represents the number of calories consumed from rice and beans each day.
3. Write an equation that represents the number of servings of rice and beans consumed each day.
4. Solve the system of equations using the substitution method. Explain what your solution represents in the context of the problem.