## EXTRA PRACTICE — Exercises

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## Unit III – First Degree Relations with Two Placeholders Part F – Problem Solving Using Two Placeholders Lesson 2 – "Number" Problems

For each of the following story problems, answer the four analysis questions to find the system of simultaneous linear equations needed to solve. Then solve and use common sense to check your answer.

- 1. The sum of two numbers is seven. Twice the second number is, six less than, three times the first number. Find the two numbers.
- 2. The larger of two numbers is, three more than twice the smaller. If twice the larger is decreased by five times the smaller, the result is zero. Find the two numbers.
- 3. The sum of two numbers is thirty-five. Twice the first number is equal to ,five times the second number. Find the two numbers.
- 4. Twice one number is, twenty more than a second number. One-fourth of the first number is, two less than one-fourth of the second. Find each number.
- 5. The sum of two numbers is fourteen. Twice the larger number, increased by, three times the smaller number, is thirty-four. Find the two numbers.
- 6. Twice one number is, fifteen less than a second number. When thirteen is added to the second number, the result is, seven less than, nine times the first number. Find the numbers.
- 7. The difference between two numbers is seven, and the greater number is, three more than twice the smaller. Find the numbers.
- 8. Three times the sum of two numbers is, seven more than the greater number. One-half the difference of the numbers is three. What are the two numbers?
- 9. The sum of two numbers is one hundred thirty. One number is, forty-six more than half the other number. What are the numbers?
- 10. A number is the same as, three times a second number decreased by nine. If the number is multiplied by two, and added to ,four times the second number, the result is negative six.

## EXTRA PRACTICE — Answer Key

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For each of the following story problems, answer the four analysis questions to find the system of simultaneous linear equations needed to solve. Then solve and use common sense to check your answer.

- 1. The two numbers are 4 and 3
- 2. The two numbers are 6 and 15
- 3. The two numbers are 10 and 25
- 4. The two numbers are 36 and 28
- 5. The two numbers are 6 and 8
- 6. The two numbers are 5 and 25
- 7. The two numbers are 11 and 4
- 8. The numbers are 5 and -1
- 9. The numbers are 74 and 56

10. The numbers are  $\frac{6}{5}$  and  $\frac{27}{5}$