Name: Date: Period:

Use the following template to solve word problems.

Let Statements	**Equation**	**Solve**	**Statement/Sentence**
• Determine # of "Let" statements needed • Write them beginning with Let x = _____	• Set up equation USING the "Let" statements just written • Start with your EQUAL sign	Solve the equation using • Distribute • Combine • Eliminate	Substitute the value for x back into the "Let" statements to write your sentence answering the question being asked

Solve each problem algebraically. Show all your work on a separate piece of paper.

1. The greater of two numbers is 1 more than twice the smaller. Three times the greater exceeds five times the smaller by 10. Find the numbers.

2. The second of three numbers is 1 less than the first. The third number is 5 less than the second. If the first number is twice as large as the third, find the three numbers.

3. It took the Gibbons family 2 days to travel 925 miles to their vacation home. They traveled 75 miles more on the first day than on the second. How many miles did they travel each day?

4. During the first 6 months of last year, the interest on an investment was $130 less than during the second 6 months. The total interest for the year was $1,450. What was the interest for each 6-month period?

5. Leonard wants to save $100 in the next 2 months. He knows that in the second month he will be able to save $20 more than during the first month. How much should he save each month?

6. To rent a car, the ABC Company charges $75 a day plus $0.05 a mile. How many miles did Mrs. Kiley drive if the cost of renting the car was $92.40?

7. Lois is four times as old as her son Dan. The sum of their ages is 40. How old is Dan?

8. The width of a rectangle is equal to a side of a square. The length of the rectangle is 1 less than twice the side of the square. The perimeter of a rectangle exceeds the perimeter of the square by 10. Find a side of the square.

9. The length of a rectangle is 1 more than 3 times the width. If the length is diminished by 3 and the width is doubled, a new rectangle is formed whose perimeter is 46. Find the dimensions of the original rectangle.

10. The length of a rectangle is twice the width. If the length is increased by 6, and the width is doubled, a new rectangle is formed whose perimeter is 20 more than the perimeter of the original rectangle. Find the dimensions of the original rectangle.

11. Find three consecutive positive odd integers such that twice the sum of the second and third is 2 less than six times the first.

12. Find three consecutive integers whose sum is –57.