**Assignment: Solving Systems by Substitution**

Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period \_\_\_\_\_\_\_\_

**Solve by using substitution. Show Work!**

1. $x+y=17$ 5. $x=-4y$

 $y=x+7$ $2x+6y=-3$

2. $y=x-19$ 6. $12x+y=21$

 $2x-y=27$ $18x-3y=-36$

3. $2x-y=2$ 7. $y=4x$

 $3x-2y=11$ $32x+21y=29$

4. $y=3x+5$ 8. $x=y+1$

 $x=-3y-5$ $-2x+3y=2$

**Define the variables, write a system and solve.**

9. A rectangle has a perimeter of 18 cm. Its length is 5 cm greater than its width. Find the dimensions.

10. The volleyball club has 41 members. There are 3 more boys than girls. How many girls are there?

11. The number of calories in a piece of pie is 20 less than three times the number of calories in a scoop of ice cream. The pie and ice cream together have 500 calories. How many calories are in each?

12. Mrs. Conner has 4 more students than Mr. Harris. Mrs. Ross has 4 fewer students than Mr. Harris. All together there are 54 students. How many students does each teacher have?