

# PRACTICE PROBLEMS

1. There are two numbers whose ~~sum~~sum is 72. One number is twice the other. What are the numbers?

$$2+x=72$$

$$3x=72$$

$$3/72=24$$

$$x=24$$

**Commented [1]:** Good, but you should have two numbers. Use this equation to get the other number  
 $2x=$

2. There are two numbers whose sum is 50. Three times the first is 5 more than twice the second. What are the numbers?

$$3x+2(50-x)+5$$

$$3x=100-2x+5$$

$$5x = 105$$

$$x = 21 \text{ and } 50 - x = 29$$

**Commented [2]:** Very good!

The first number is 21 and the second number is 29.

3. Separate 90 into two parts so that one part is four times the other part.

$$90 - x = 4x$$

$$-5x = -90$$

$$x = 18$$

$$90 - x = 72$$

Two parts of 90 are 18 and 72.

**Commented [3]:** Very good!

4. There are two numbers whose sum is 53. Three times the smaller number is equal to 19 more than the larger number. What are the numbers?

$$3x = (53 - x) + 19$$

$$4x = 72$$

$$x = 18$$

$$53 - x = 35$$

Two numbers are 18 and 35

Commented [4]: Very good!

5. Mr. and Mrs. Patton and their daughter Carolyn own three cars. Carolyn drives 10 miles per week farther with her car than her father does with his. Mr. Patton drives twice as many miles per week as Mrs. Patton. If their total mileage per week is 160 miles. How many miles per week does each drive? (Note: This problem can also be seen as a distance word problem).

$$x + 2x + (2x + 10) = 160$$

$$5x + 10 = 160$$

$$5x = 150$$

$$x = 30$$

$$2x = 60$$

$$2x + 10 = 70$$

Mr. Patton drives 60, Mrs. Patton drives 30 and their daughter Carolyn drives 70.

**Commented [5]:** Very good!