

Name:

Date:

Period:

**Non-Negotiable Parts of a Word Problem:**

**Let Statements**

Determine how many "Let" statements needed & write them beginning with "Let x ="

**Equation**

Set up equation USING "Let" statements just written. Start with your EQUAL sign

**Solve**

Solve the equation using  
Distribute  
Combine  
Eliminate

**Statement/Sentence**

Substitute the value for x back into the "Let" statements to write your statement

Use "Let" statements and solve each problem algebraically. Show all your work on a **separate piece** of paper.

1. Ninety-six golf balls were picked up at the driving range and placed into two buckets. One bucket has twenty-eight more golf balls than the other bucket. How many golf balls are in each bucket?
2. A college has two philosophy classes with a total of two hundred thirty-seven students. One class has forty-five fewer students than the other class. How many students are in each class?
3. Five times a number increased by seven is equal to forty-seven. What is the number?
4. The larger of two numbers is 1 less than 3 times the smaller. If 3 times the larger is 5 more than 8 times the smaller, find the numbers.
5. A basketball team played thirty-two games and won three times as many games as it lost. How many games did the team win?
6. If 6 times a number is decreased by 6, the result is the same as when 3 times the number is increased by 12. Find the number.
7. One hundred sixty-two guests attended a banquet. Three servers provided their beverages. The second server helped three times as many people as the first server and the third server helped twice as many people as the first server. How many guests did each server help?
8. If 3 times a number is increased by 22, the result is 14 less than 7 times the number. What is the number?
9. Ava's mother is 3 times as old as Ava. Her grandmother is twice as old as Ava's mother. The sum of their three ages is 120. How old is Ava, her mother, and her grandmother?
10. The length of a rectangle is three times the difference of the width and two. If the perimeter of the rectangle is 60 cm, what is the length of the rectangle?