

Using Algebra to Solve Word Problems

1

DEFINE A VARIABLE

Use "**LET STATEMENTS**" to define your variable.

2

SET UP EQUATION & SOLVE

Translate into an equation using your let statements. Then solve!

3

DEFINE ANSWER

Give exactly what the problem is asking for.

Set I: *Finding Two Numbers*

1. The larger of two numbers is four more than the smaller number. If the sum of the numbers is 74, find the numbers.
2. The larger of two numbers is seven less than three times the smaller number. If the sum of the numbers is 61, find the numbers.
3. The larger of two numbers is one more than four times the smaller number. If the sum of the numbers is 106, find the numbers.
4. The larger of two numbers is twice the smaller number. If 12 is subtracted from the larger number, the result is 7 more than the smaller number. Find the numbers.
5. The highest score on an Algebra test was 42 points more than the lowest. When added together, the lowest and highest score was 154. Find both the highest and lowest score.

6. Garrett has one dollar less than three times as much money as Liz has. Together they have \$179. How much money does Garrett have?

7. The Buffalo Bills scored 24 more than twice the number of points that the Miami Dolphins scored. Altogether, the teams scored 66 points. How many points did each team score individually?

8. There are 10 less red skittles than orange skittles in the bag. The orange skittles are also twice the number of red skittles. Find the number of red and orange skittles in the bag.

Set 2: *Perimeter of a Rectangle*

9. The length of a rectangle is six inches more than its width. If the perimeter of the rectangle is 24 inches, find its dimensions.

10. The length of a rectangle is five inches more than four times its width. If the perimeter of the rectangle is 90 inches, find its dimensions.

11. The length of a rectangle is three centimeters less than twice its width. If the perimeter of the rectangle is 18 centimeters, find its dimensions.

12. The length of a rectangle is 7 inches more than its width. If the perimeter of the rectangle is 66 inches, find its dimensions.

13. The length of a rectangle is five less than twice its width. If the perimeter of the rectangle is 56 inches, find its dimensions.

Set 3: *Consecutive Numbers*

What does consecutive mean?

EXAMPLES	Consecutive Numbers	
	Consecutive EVEN Numbers	
	Consecutive ODD Numbers	

14. The sum of two consecutive numbers is 123. Find the numbers.

15. If the sum of two consecutive numbers is 85, find the numbers.

16. Find two consecutive **even** numbers whose sum is 54.

17. The sum of two consecutive **odd** numbers is 128. Find the numbers.

18. The sum of three consecutive **even** numbers is 138. Find the numbers.

19. The sum of three consecutive **odd** numbers is 57. What are the three numbers?

20. The sum of three consecutive numbers is 33 more than the smallest of the numbers. Find the numbers.

21. In cross-country, the team score is determined by the place each individual runner finishes. (For example 1st place is one point, 16th place is 16 points, etc.) In their latest meet, the boys' cross-country team scored 55 points. If there were five runners on the team and each runner finished one after another, what places did they each come in?

