

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. One number is 3 times another number. If 17 is added to each, the resulting larger number is twice the resulting smaller number. Find the two numbers.
2. The second of three numbers is one less than the first. The third number is 5 less than twice the second. If the third number exceeds the first number by 12, find the three numbers.
3. A video store offers two yearly pricing plans:
 - A. \$20.00 annual fee plus \$1.50 for each movie rented.
 - B. No annual fee plus \$6.50 per movie.How many movies will a person need to rent in order to spend an equal amount of money using either plan?
4. A rectangular playground is enclosed by 440 feet of fencing. If the length of the playground is 20 feet less than 3 times the width, find the dimensions of the playground.
5. The marina parking lot charges \$9.20 for the first hour and \$1.20 for each additional hour. The main street parking lot charges \$2.00 for the first hour and \$1.80 for each additional hour. For how many hours will the two lots charge an equal amount of money?
6. The perimeter of a triangle is 49 inches. If the second side is 5 inches longer than twice the first side, and the third side is 4 inches less than three times the first side, how long is each side?
7. Joel is buying presents for members of his family. He wants to spend \$10 less on his brother than he spends on his sister, and six dollars more than twice the amount he spends on his sister on his mother. If Joel has \$100 to spend, how much does he intend to spend on his brother?
8. One number is 4 more than 5 times another number. If 6 is added to each, the first resulting number is three times the second resulting number. Find the two numbers.
9. The length of a rectangle exceeds 3 times its width by 1 inch. If the length of the rectangle is diminished by 3 inches and the width is doubled, a new rectangle is formed whose perimeter is 46 inches. Find the dimensions of the original rectangle.
10. Billy worked three more hours on Tuesday than he did on Monday. On Wednesday, he worked one hour more than twice the number of hours that he worked on Monday. If the total number of hours is two more than five times the number of hours worked on Monday, how many hours did he work on Monday?