Year 7 Equations Word Problems

Example 1

The sum of two numbers is 52. If the larger number is 38, what is the smaller number?

Steps:

1. Define a pronumeral for the smaller number.

   Let x be the smaller number.

2. Write an equation to describe the problems.

   x + 38 = 52

3. Solve the equation systematically.

   x = 52 − 38
   ∴ x = 14

4. State the answer.

   The smaller number is 14.

Question 1

The difference between two numbers is 38. If the smaller number is 19, find the larger number.

Steps:

1. Define a pronumeral for the larger number.

2. Write an equation to describe the problems.

3. Solve the equation systematically.

4. State the answer.

Question 2

The product of a number and 3 is -21. What is the number?

Question 3

Kate buys 9 pens for a total cost of $12.15. What is the cost of 1 pen?

Question 4

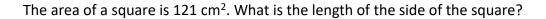The difference between four times a number and 5 is 23. What is the number?

Question 5

I think of a number, divide by 4, add 9, the result is 13. What is the number?

Question 6

The length of a rectangle is 8 cm. Its perimeter is 24 cm. What is its width?

Question 7

The area of a square is 121 cm^2. What is the length of the side of the square?

Question 8

An equilateral has a perimeter of 36 cm. What is the length of the side of a triangle?

Question 9

A rectangle is 6 cm longer than it is wide. If its perimeter is 96 cm, find the width and length of the rectangle.

Question 10

The sum of three consecutive even numbers is 150. Find the largest of the three consecutive even numbers.