

Number Operations and Calculation Methods

Age 11+ Level ★ Worksheet 1

1. Reverse Subtraction

In this subtraction, a, b and c are digits, and a is less than b. What is the value of c?

2. Bus Route

Nine bus stops are equally spaced along a bus route. The distance from the first to the third is 600m. How far is it from the first to the last?

3. Debasing the Coinage

In 1990 a new size 5p coin was minted. The old size weighed 5.65g while the new size weighs 3.25g.

How much lighter will your pocket be if it contains £5 worth of the new size coins instead of the old size?

4. Fly Away

In this addition, each letter represents a different non-zero digit.

Find the values of A, F, L, W and Y.

5. Hot Dogs

A hot dog lover ate 60 hot dogs over an 8-day period. Every day, she ate one more hot dog than she had eaten the day before.

How many hot dogs did she eat on the first day?

6. 2014 Even Numbers

What is the difference between the sum of the first 2014 odd numbers and the sum of the first 2014 even numbers?

These problems are adapted from UKMT (ukmt.org.uk) and WMC (competition.ac) problems.