## Age 11+ Level $\star\star$ Worksheet 1

# 1. Jam and Egg Sandwich

Each different letter in the multiplication on the right stands for a different digit. Identical letters stand for the same digit. Work out the value which each letter represents.

## 2. So Many Sums

In this addition, each letter stands for a different digit, with S standing for 3.



## 3. Rolling Along the Trail

A pair of dice is thrown and the score is obtained by finding the **product** of the two numbers when they land.

In five throws of both dice:

the second score is 5 more that the first; the third score is 6 less than the second; the fourth score is 11 more than the third; the fifth score is 8 less than the fourth.

What was the score for each of these five throws?

## 4. Kangaroo Subtraction

In this subtraction, each of the letters K, A, N, G, R and O represents a different digit.

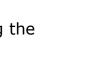
What is the largest possible value of the number 'KAN'?

## 5. Operational Decision

Which symbol  $(+, -, \div$  or  $\times$ ) should replace  $\bigoplus$  to make the following equation true?

 $1 \times 2 \times (3 \oplus 4 + 5) \times (6 \times 7 + 8 + 9) = 2006$ 

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



+ <u>MANY</u>



