



Column addition and subtraction – Mikhaila and Imram

Objectives

The relevant framework objective is:

- Develop and refine written methods for: column addition and subtraction of two whole numbers less than 1000, and addition of more than two such numbers (key objective).

Activity description

The teachers gave the pupils 2 three–digit numbers in a maths question. The pupils then had to use column addition and subtraction to calculate both the sum and the difference.

Commentary

Mikhaila has added 2 three–digit numbers crossing the hundreds boundary and has found the difference between 2 three–digit numbers.

Imram's work shows that he uses the standard algorithm for the top row. When more than three numbers are involved, he uses an expanded method, starting with adding the hundreds and tens, and lastly the units.

Using written methods for the addition and subtraction of numbers with three digits demonstrates performance at level 3 in Ma2.



Items of work

Mikhaila adds 2 three-digit numbers

$$400 + 500 = 900$$

$$86 + 14 = 100$$

This left over \rightarrow

$$\underline{\underline{1000}}$$

$$\begin{array}{r} 486 \\ + 521 \\ \hline 1007 \\ \hline 1 \end{array}$$

Mikhaila finds the difference between 2 three-digit numbers

$$486 \text{ to } 500 = 14$$

and

+

$$500 \text{ to } 521 = 21$$

The difference is 35



Imram adds several numbers with up to three digits

$$\begin{array}{r} 249 \\ + 516 \\ \hline 71 \\ \hline 836 \\ \hline 11 \end{array}$$

$$\begin{array}{r} 850 \\ 333 \\ \hline 29 \\ \hline 1,212 \\ \hline 11 \end{array}$$

$$\begin{array}{r} 990 \\ 171 \\ \hline 38 \\ \hline 1,199 \\ \hline 1 \end{array}$$

$$\begin{array}{r} 821 \\ 197 \\ 43 \\ \hline 316 \\ \hline 1,200 \\ + 160 \\ \hline 17 \\ \hline 1,377 \end{array}$$

$$\begin{array}{r} 666 \\ 98 \\ 301 \\ 552 \\ \hline 1,400 \\ 200 \\ 17 \\ \hline 1,617 \end{array}$$



About this entry

Subject: mathematics

Year: 4

Key stage: 2

NC programme of study: Ma2p3i

Attainment target: Ma2

Evidence for: level 3

Framework for teaching mathematics – objectives:

- Develop and refine written methods for: column addition and subtraction of two whole numbers less than 1000, and addition of more than two such numbers.