Alphabet numerals

Challenge

Replace each letter with a digit from 0 to 9. Identical letters must be replaced by the same digit.

The same digit cannot be used for more than one letter.

Some of the digits have already been given.

Write about how you worked out the value of each letter.

$$\begin{array}{r} A\ B\ 8\ H \\ \times \qquad\quad 6 \\ \hline 2\ 2\ B\ J\ H \end{array}$$

$$\begin{array}{r} \cdot 2\ 5\ I \\ \times \qquad 6\ B \\ \hline C\ 5\ 5\ H\ J \\ C\ E\ C\ A \\ \hline C\ B\ A\ 5\ A \end{array}$$

$$8\overline{)A\ 6\ 8}\quad H\ 6$$

Think about ...

Use your knowledge of the multiplication tables and also the inverse relationship between multiplication and division.

Using clues from one calculation will help you identify unknown digits in another calculation.

What if?

What if you replace each letter with a digit from 0 to 5? Once again, identical letters must be replaced by the same digit and the same digit cannot be used for more than one letter. But there is only one clue this time!

r does not represent a number, it strands for 'remainder'.

$$\begin{array}{r} 3\ V\ Y \\ \times \quad Y\ W \\ \hline 3\ V\ Y\ V \\ Y\ W\ V\ W \\ \hline Z\ W\ Y\ W \end{array}$$

$$3\overline{)Y\ 3\ W}\quad Z\ W$$

$$Z\overline{)U\ Y\ W}\quad W\ 3\ r\ 3$$

Write about how you worked out the value of each letter.

When you've finished, turn to page 80.