

Three Puzzles

In all three puzzles letters represent digits. (They are not being used as variables as we do in algebra.) For example, if **A** = 2 and **B** = 7, then **AB** = 27. Each puzzle is to be solved separately. Find out what each letter represents. Good luck!

I. A Mysterious Message

In this puzzle we get a bunch of information about the letters. Each letter represents one of the digits from 0 to 9. If we write the solution down from 0 to 9, we get a secret message!

$$\mathbf{O + O = E} \qquad \mathbf{H A T} \qquad \mathbf{H \times I = I} \qquad \mathbf{T \times V = OL} \qquad \mathbf{M \times M = OM}$$

$$+ \mathbf{M A T}$$

$$\mathbf{O \times O = E} \qquad \mathbf{L E V E}$$

0 1 2 3 4 5 6 7 8 9

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II. A Multiplication

Here's a three digit by three digit multiplication problem all worked out for you! Each letter is one of the digits from 0 to 9. What do the letters stand for this time?

$$\begin{array}{r} \mathbf{ABC} \\ \times \mathbf{ABC} \\ \hline \mathbf{DEFC} \\ \mathbf{CEBH} \\ \mathbf{EKKH} \\ \hline \mathbf{EAG FFC} \end{array}$$

III. The Square Root of Wonderful

"The Square Root of Wonderful" was the name of a play by Carson McCullers. But let's say that the square root of **WONDERFUL** = **OODDF**. Each letter is one of the digits from 1 to 9. What do these letters stand for?