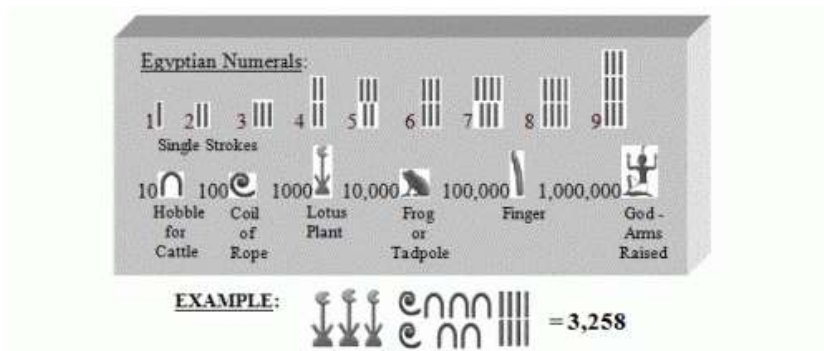




Gordon Burgin's Puzzles

Egyptian arithmetic

The ancient Egyptians were possibly the first civilisation to practice the scientific arts. Where the Egyptians really excelled was in medicine and applied mathematics. They must have had an advanced understanding of the mathematics because their exploits in engineering, astronomy and administration would not have been possible without it. The Egyptians had a decimal system using mainly seven different symbols as shown below. The convention is that you read from left to right and where there is more than one row of numbers, start at the top.



Solve the following arithmetic problems giving your answers in the ancient Egyptian characters.

Puzzle one

$$\begin{array}{c} \text{nnnn} \\ \text{nnnn} \end{array} \text{ ||||} + \text{enl} + \text{enl} \text{ ||||} = ?$$

Puzzle two

$$\begin{array}{c} \text{f} \\ \text{f} \end{array} \text{ n} - \text{eeen} \text{ ||||} = ?$$

Puzzle three

$$\begin{array}{c} \text{g} \\ \text{f} \\ \text{f} \end{array} \text{ eeennnn} \text{ ||||} + \text{eeenn} \text{ ||||} = ?$$