DEVELOPMENT OF NUMBERS AND NUMERALS; EARLY NUMBERS SYSTEMS

The idea of counting is probably as old as man. Just as early men communicated on various aspects of life, they also communicted about numbers (in their own way). At that time, they used their fingers, toes, sticks, pebbles and stones to communicate numbers to one another. For instance, a man who had 12 goats would pick object (sticks, pebbles, or stones) and associate one each with each of the 12 goats. He would then keep the 12 objects to communicate the number of goats he had. With this method, he was also able to detect when one or more of his goats got missing.

Since early men did not know numerals as today or how to record numbers, they made marks on clays, stones, woods, walls and other objects to represent numbers. For example, a knife was used to make four marks on the wood to indicate four goats; seven knots were tied to a rope to indicate seven yam tubers.

In the beginning, there were no standard numerals to represent numbers. As a result symbols and marks were used by early man. In the course of time, man developed specific uniform symbols for representing numbers. Some of the earliest numbers systems are those of the Egyptians, the Babylonians, the Romans, the Hindus and the Arabs.

Egyptian Number System

About the year 3000 BCE, the Egyptian had already developed a number system which made it possible for them to represent numbers up to a million and more.

Number	Egyptian symbol	Name of the man
1	|	Stroke
10	∩	Heel bone
100		Coiled rope or scroll

1000		Lotus flower
10000		Pointed finger
100000		Burbot fish
1000000		An astonished man

In the Egyptian system, the number 45 would be written as 𓎆𓎆𓎆𓎆𓏺𓏺𓏺𓏺𓏺 or 𓏺𓏺𓏺𓏺𓏺𓎆𓎆𓎆𓎆. Similarly, the number 1125 would be written as 𓆼𓍢𓎆𓎆𓏺𓏺𓏺𓏺𓏺 or 𓏺𓏺𓏺𓏺𓏺𓎆𓎆𓍢𓆼. In other words, the order of arrangement of the symbols does not matter. Always remember to start reading from bigger figures.

Roman Number System

The Roman number system was developed about 300BCE. The system is still in use now. The symbols used in the system are I, II, III, IV, and V for 1, 2, 3, 4, and 5 respectively. The digits X, L, C,

D, and M are used for 10, 50, 100, 500, and 1000 respectively. Combinations of the basic symbols are used to form all other numbers.

Hindu-Arabic Number System

By about 200AD, the Hindus of India developed a number system which had symbols for digits one to nine. At this time, there was no symbol for zero. About 800AD, a symbol was developed for zero. The symbol was a dot (.). With this development, Hindus wrote numbers like 409. It is noteworthy that the Hindu system has place value embedded in it. Hence, the value of 4 in 964 is 4 units while its value in 946 is 4 tens.

The Hindu system was later brought to Africa and taken to Europe by migrant Arab traders. This probably explains why the system is called the Hindu-Arabic.