

vacant, as in 10 (ten) it gives a ten-fold value to the 1. In 130 (one hundred thirty) it gives a ten-fold value to the 13. A cipher between two or more figures produces the same effect. In 405 the cipher which fills the intervening place between 4 and 5 causes the 4 to represent four hundreds, not four tens.

5
00
400

5 = 5 Units

00 = 0 Tens

400 = 4 Hundreds

405 = Total

The following general principles should be firmly fixed in the mind:

All numbers are expressed by the nine digits and zero.

Zero has no value; it is used to fill vacant places only.

A figure has different values according to the place it occupies.

The base of the system of notation is ten; ten units of any order making one unit of the next order.

NUMERATION

Numeration is the art of reading numbers when expressed by letters or figures.