This page is extracted from Quettar Special Publication No. 1, 'The Writing Systems of Middle-earth', by David Doughan and Julian Bradfield, published in 1987.

Part III: Numerals

The tengwar numerals were found and presented to *Quettar* by Christopher Tolkien (see *Quettars* 13 and 14). The following is adapted therefrom.

For lists, series and the like, the *tengwar* from 1 to 24 (, , . . . ,) were used, just as we use (a), (b), ... A sign such as a dot or bar above could be used, e.g. or .

For numbers proper, the Eldar used both a decimal and a duodecimal system, the Dwarves used a duodecimal system, and the Men of the West in the Third Age used mainly a decimal system. The digits used were as follows:

0	1	2	3	4	5	6	7	8	9	10	11

In all systems the numbers are written with the unit digit at the left. The digits were usually marked, either by a dot over each digit, or by a line drawn above the number, for a decimal system; in a duodecimal system, the dot or line was written below. The mark could be omitted where no confusion would arise. In a duodecimal system, a circle could be used (in place of the dot) to mark the twelves digit; and the symbol or could be used for 12 (though how, it is not clear!).

Examples:

(Italic numbers are used for reversed numbers, roman for normal numbers.)

Decimal: = *01* = 10 ; = *091* = 190

= *1780396* = 6930871

Duodecimal: or = $\mathit{5\,3}_{12}$ = $3\,5_{12}$ = 41

= $\mathit{7\,0\,\widehat{11}\,2\,\widehat{10}\,3\,2}_{12}$ = $2\,3\,\widehat{10}\,2\,\widehat{11}\,0\,7_{12}$ = 6 930 871

The only numerals we have for the runes are three digits found in the Book of Mazarbul in *Pictures by J. R. R. Tolkien*: = 3, = 4, = 5.