Vigesimal Numeral Base

One aspect of numeral expressions is the multiplicational base that is used. Some languages use a vigesimal numeral base: the general structure of numerals in those languages is *m20+n* (the actual order of elements being disregarded; however, see Numeral Composition 10+n and Numeral Composition 20+n, for a discussion on sequencing), meaning that some lower numeral *m* is a multiplier of 20 (or an element that is derived from it) added to it by some other numeral *n* (in the range 1-19) as a typical way of forming numerals above twenty. When categorizing a language as using a vigesimal base, the overall structure of forming numbers up to 99 has been taken as diagnostic. ‘20’ is thus routinely used as a recurring element for forming numbers beyond the interval 1-19 (see Decimal Numeral Base). No attempt has been made to distinguish pure vigesimal from hybrid vigesimal-decimal along the lines of WALS, as there is in most cases no such clear-cut treatment between numbers below 100 and above 100. Shemal Pashai, as displayed in ‎(1), is an example of a language using a vigesimal base.

1. Shemal Pashai [aee(sh)] (Indo-Aryan)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ‘6’ | tɕʰə | numeral n=6 | ‘46’ | dijɑ̃ːbi tɕʰə | 2x(20)+6 |
| ‘10’ | *daːj* | numeral n=10 | ‘50’ | *dijɑ̃ːbi daːj* | 2x(20)+10 |
| ‘16’ | *səɽ* | numeral n=16 | ‘60’ | *ɬejɑ̃ː* | 3x(20) |
| ‘20’ | *wiːst* | vigesimal base 20 | ‘70’ | *ɬejɑ̃ːbi daːj* | 3x(20)+10 |
| ‘26’ | *wistə tɕəː* | 20+6 | ‘80’ | *t͡soːrijɑ̃ː* | 4x(20) |
| ‘30’ | *wistə daːj* | 20+10 | ‘90’ | *t͡soːrijɑ̃ːbi daːj* | 4x(20)+10 |
| ‘36’ | *wistə səɽ* | 20+16 | ‘100’ | *paːnjɑ̃ː* | 5x(20) |
| ‘40’ | *dijɑ̃ː* | 2x(20) | ‘110’ | *paːnjɑ̃ːbi daːj* | 5x(20)+10 |

A vigesimal base is present in approximately two thirds of the sample, essentially constituting the overall dominant system in its central parts.

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| Feature value | # of varieties displaying it | % |
| Present | 38 | 64 |
| Absent | 20 | 34 |
| Indeterminate | 1 | 2 |