Nimbia numbers (15)

The seven numerals 13, 15, 19, 25, 60, 79, and 94 are written below in Nimbia, arranged in an arbitrary order.

a. tuni mbe da
b. gume bi ni da
c. tuni mbe bo'o
d. tuni mbe ugu
e. gume bo'o ni gwom
f. gume biyar
g. gume shide ni bo'o

Furthermore, below are seven equalities.

h. gwom + shide = tuni mbe furu
i. da + furu = biyar
j. gume ugu - gwom = biyar x ugu + kwada
k. wo = tuni x tuni
l. tager = bi x bo'o - shide
m. wo bi ni ugu - wo mbe tuni = gume kwada ni ugu
n. gwom - da = tawan

Task 1: Match the Nimbia numbers a-g with the stated numerals.

Task 2: Write the following Nimbia numbers in numerals:
i) kwada
ii) wo bo'o ni da
iii) wo mbe gume bo'o ni furu
iv) gume ugu ni tawan

Task 3: Write the following numerals in Nimbia:
v) 21
vi) 103
vii) 737
viii) 1514

Nimbia is a dialect of the Gwandara language, spoken by about 30,000 people in northern Nigeria. ' is a consonant.

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Nimbia numbers: Answers and explanation (15)

Task 1:

13 a
15 d
19 c
25 b
60 f
79 g
94 e

Max mark 3:
3 for 7 correct matches
2 for 6/5 correct matches
1 for 4/3 correct matches
0.5 for 2 correct matches
0 for 1/0 correct matches

Task 2: Write the following Nimbia numbers in numerals:
i) kwada **11**
ii) wo bo'o ni da **1009 (144 x 7 + 1)**
iii) wo mbe gume bo'o ni furu **232 (144 + 12 x 7 + 4)**
iv) gume ugu ni tawan **45 (12 x 3 + 9)**

One mark per correct numeral. Must be fully correct to gain any credit (bracketed sums not required)
Max mark 4

Task 3: Write the following numerals in Nimbia:
v) 21 **tuni mbe tawan (12 + 9)**
vi) 103 **gume tager ni bo'o (12 x 8 + 7)**
vii) 737 **wo biyar ni tuni mbe biyar (144 x 5 + 12 + 5)**
viii) 1514 **wo gwom ni gume shide ni bi (144 x 10 + 12 x 6 + 2)**

Two marks for fully each correct Nimbia number (bracketed sums again not required)
One mark for a single mistake
No mark for two or more mistakes
Max mark 8

Explanation:

α {1 da; 2 bi; 3 ugu; 4 furu; 5 biyar; 6 shide; 7 bo'o; 8 tager; 9 tawan; 10 gwom; 11 kwada
β {12 tuni; 144 wo

β + X, + => mbe
β α + X, + => ni
β α = β x α (NB tuni => gume)

$\beta_1 ... + \beta_2 ... , \beta_1 > \beta_2$

NB:

h. gwom + shide = tuni mbe furu
10 + 6 = 12 + 4

i. da + furu = biyar
1 + 4 = 5

j. gume ugu - gwom = biyar x ugu + kwada
12 x 3 - 10 = 5 x 3 + 11

k. wo = tuni x tuni
144 = 12 x 12

l. tager = bi x bo'o - shide
8 = 2 x 7 - 6

m. wo bi ni ugu - wo mbe tuni = gume kwada ni ugu
144x2 + 3 - (144 + 12) = 12 x 11 + 3

n. gwom - da = tawan
10 - 1 = 9