Morphology of Àbèsàbèsì Numerals: A Case Study of Èkiròmì̀

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Abstract

This paper explores the mathematical conceptualization and arithmetical operations that are expressed by the linguistic forms of the numeral systems of 'Àbèsàbèsi' (Known in literature as Akpes (etymology ibe), Èkiròmì lect in particular) a member of the Edoid language family of Niger Congo language. Direction of Èkiròmì counting is from left to right. The morphology of the numerals indicates Èkiròmì basic elements as 1, 2, 3, 4, 5, 10, 20 and three basic points of bundles as10, 20 and 400. Thus African Languages may start with the same basic elements but combine them in intricate and create ways and patterns to produce unique and effective numeral systems cf. Oyebade and Agoyi (in preparation).

Introduction

Àbèsàbèsì speakers are bilingual . The speakers acquire Àbèsàbèsì and Yoruba from childhoo d. The Yoruba numeral is learnt alongside Àbèsàbèsì numeral . linguists say that 'numeral system in most African Languages is either based on five , decimal (base ten) or vigesimal (base twenty)' Oduyoye (1969: 3) comments, 'in counting on fingers and toes, the first point of rest is at the number 5, the number of fingers on one hand ……10 [ten] is another point of rest [i.e. the number of fingers on the two upper limbs]. ….20 (twenty) is complete in the system of counting on fingers and toes…..'' (Oduyoye 1969:3). Èkiròmì attests similar counting. Each of the units the language attests is discussed one after the other with refrence to the mathematical calculation language attests.

1. Èkiròmì counting system: One-Ten

The count from one to ten as revealed from the data collected is presented in the table Below:
Table I

Figure	Counting system	Èkiròmì	Gloss
1	1	ígbon/ ekìnì	one
2	2	ídià	two
3	3	ísasi	three
4	4	íninɲi	four
5	5	íʃonì	five
6	6	ítʃǎnasi	six
7	7	ítʃenètʃì	seven
8	8	ànanìɲi	eight
9	9	òkpolòʃì	nine
10	10	ìyofi	ten

Let us assume that the data in table one attests Èkiròm ì affixation . The affixes in this case are prefixes and suffixes. Let us also assume the initial vowel in each lexical item is a prefix.
The implication is that the lexical items are assumed to be formed as:

1. í- gbo /e- kìnì, í- dià, í - sasi, í- niŋi,
pre one/pre one pre two pre three pre four
í- ʃonì, í- ʧánasi, í- ʧenèʧì, à- naniŋi, ò- kpolòʃì, ì- yofi
pre five pre six pre seven pre eight pre nine pre ten

The prefix has five allomorphs. They are:
2 [í-] í-gboni, í-diànì, í-sasi, í-niŋi, í-ʃonì, í-ʧánasi, í-ʧenèʧì
[ì-] ì- yofi
[e-] e-kìnì,
[à-] à-naniŋi
[ò-] ò-kpolòʃì.

The suffix in each item is presumed to be the last syllable of the word. They are:
3a) [-nì] e- kì -nì, í- dià -nì i- ʃo -nì
pre one suffix pre two suffix pre five suffix
b) [-ŋi] í- ni -ŋi, à- nani -ŋi
pre four suffix pre eight suffix
c) [-si] í- sa -si, í- ʧána -si
Pre three, suffix pre six surffix
d) [-ʃì] ò- kpolò -ʃì
pre nine suffix
e) [-ʧì] í- ʧenè -ʧì
pre seven suffix
f) [–fi] í- yo -fì
pre ten fi

The root morphemes are: gbo/ki 'one' dia 'two', sa 'three', ni 'four' ʃo 'five', ʧána 'six' ʧenè 'seven' nanì 'eight' kpolò 'nine' and yofi 'ten'. Let us examine Èkiròmì counting system from eleven to twenty.

2. Èkiròmì counting system: Eleven to Twenty

The way Èkiròmì counts from ele ven to twenty is presented on table 2 below.
Table II

Figure	Conputation	Linguistic Form[2]		Gloss
11	1 +10	ekìtefi	one top ten	eleven
12	2 +10	ídiàtefi	two top ten	twelve
13	3 +10	ísatefi	three top ten	thirteen
14	4+10	ínitefi	four top ten	fourteen
15	-5+20	íʃonlɔgbɔlɔ	five less twenty	fifteen
16	-4+20	Íniləgbɔlɔ	four less twenty	sixteen
17	-3+20	Ísaləgbɔlɔ	three less twenty	seventeen
18	-2+20	idialɔgbɔlɔ	two less twenty	eighteen
19	-1+20	ekìləgbɔlɔ	one less twenty	nineteen
20	20	ɔgbɔlɔ	twenty	twenty

Èkiròmì counting system as on table 2 shows that from 11-14, units are added to ten. Thus, the morphemes may be said to be:
4. e-kini teni -ofi→ekìtefi , í -dià tènì –ofi → ídiàtefi í- sasi tènì -ofi→ísatefi
pre one top ten eleven pre two top ten twelve pre three top ten thirteen
í- sasi tènì -ofi→ísatefi í- niŋi tènì -ofi →ínitefi
pre three top ten thirteen pre four top ten fourteen.

The analysis of the number from eleven to fourteen indicates that numbers 1-4 attest affixes identified in section one above. The morphemes are presumed to be : e-kì-nì 'one', í-dià-nì 'two', í-sa-si three and í-ni-ŋi 'four'.

The output of each form is a result of a morpho-phonological process of deletion. In each word formation, the first step is to delete the suffix. Our presumption of yo as the root morpheme in ìyofi 'ten' is questionable . –tefi has neither the shape of the consonant nor that of the vowel in the suggested root morpheme. The root morpheme in the data for iyofi is ofi 'ten'. The implication of the above claim is that the lexical item for ten has no suffix. The second step of the formation of the lexical items from eleven to fourteen in È kiròmì is the deletion of the last syllable in tènì and the final step is to delete the first syllable of ofi 'ten'. Note the behavior of 'y' in 'ìyofi', we presume it to be represented as 'i' in the word structure. The low tone on the presumed 'tèni' did not show up on any of the output form of the lexical items as expected. I have no explanation for this phenomenon. Further research may account for it.

From 15-19, w e observe a deduction from the next unit ɔgbɔlɔ 'twenty' thus:

5 í- ʃoní –le – ɔgbɔlɔ→ íʃonílɔ́gbɔlɔ
pre five less twenty fifteen

í- sasí –le ɔgbɔlɔ→ísalɔ́gbɔlɔ
pre three less twenty 'seventeen'

e- kìní –le ɔgbɔlɔ→ eknílɔgbɔlɔ
pre one less twenty. 'nineteen'

í- niní –le – ɔgbɔlɔ→ínilɔ́gbɔlɔ
pre four less twenty fourteen

í- diàní –le ɔgbɔlɔ → ídiàlɔgbɔlɔ
pre two less twenty 'eighteen\

The only phonological process observed in Èkiròmì numeral from fifteen to twenty is the deletion of the vowel of the suffix –le 'less'. The calculation process is from right to left. This is unlike English calculation which is from left to right. This phenomenon will be clearer with higher numbers.

For instance, íʃo-le-ɔgbɔlɔ '15' is if computed from left to right will be 5-20, The answer would be -15 as against -5+20 which equal to 15. This phenomenon will be clearer with higher numbers.

3. Èkiròmì counting system: Twenty-One to Forty

The numbering from twenty one to forty attests addition from one to fifteen and the subtraction from the next multiple of twenty. Data on table 3 demonstrates the above claim.
Table III

figure	Computation	Èkiròmì		Gloss
21	1+20	Ekìnínɔgbɔlɔ	one and twenty	twenty one
22	2+20	ídiànínɔgbɔlɔ	two and twenty	twenty two
23	3+20	ísasínɔgbɔlɔ	three and twenty	twenty three
24	4+20	íninjínɔgbɔlɔ	four and twenty	twenty four
25	5+20	íʃonínɔgbɔlɔ	five and twenty	twenty five
26	6+20	íʧ́ánasínɔgbɔlɔ	six and twenty	twenty six
27	7+20	íʧ́enèʧ́ínɔgbɔlɔ	seven and twenty	twenty seven
28	8+20	ànanínɔgbɔlɔ	eight and twenty	twenty eight
29	9+20	òkpolòʃínɔgbɔlɔ	nine and twenty	twenty nine
30	10+20	ìyofínɔgbɔlɔ	ten and twenty	thirty
31	1+10+20	ekìtefínɔgbɔlɔ	one top ten and twenty	thirty one
32	2+10+20	ídiàtefínɔgbɔlɔ	two top ten and twenty	thirty two
33	3+10+20	ísatefíínɔgbɔlɔ	three top ten and twenty	thirty three
34	4+10+20	ínitefínɔgbɔlɔ	four top ten and twenty	thirty four
35	-5+(20x2)	íʃonílegbɔ́diànì	five less twenty multiply by two	thirty five
36	-4+(20x2)	ìninjílegbɔ́diànì	four less twenty multiply by two	thirty six
37	-3+(20x2)	ísasílegbɔ́diànì	three less twenty multiply by two	thirty seven
38	-2+(20x2)	ídiànílegbɔ́diànì	two less twenty multiply by two	Thirty eight
39	-1+(20x2)	ekìnílegbɔ́diànì	one less twenty multiply by two	thirty nine
40	20x2	ígbɔ́diànì	twenty multiply by two	Forty

From twenty one to thirty four Èkiròmì attests addition of more than two morphemes thus:

3 e- kìní – ni- ɔgbɔlɔ
pre- one and twenty
í- sa sí ni ɔgbɔlɔ
pre-three and twenty
í- ʃoní ni- ɔgbɔlɔ
pre- five and twenty
í- ʧenèʧí ni- ɔgbɔlɔ
pre- seven and twenty
ò- kpolòʃí ni- ɔgbɔlɔ
pre- nine and twenty
e- kì- te-fí-ni-ɔgbɔlɔ
pre- one top ten and twenty
í- sa- te- fí ni- ɔgbɔlɔ
pre-three top ten and twenty

í- di aní- ni- ɔgbɔlɔ
pre-two and twenty
í- niŋí ɔgbɔlɔ
pre- four and twenty
í-ʧána ni- ɔgbɔlɔ
pre-six and twenty
à- naní ni- ɔgbɔlɔ
pre- eight and twenty
ì-yofí ni- ɔgbɔlɔ
pre-ten and twenty
í- dià-te-fí-ni- ɔgbɔlɔ
pre two top ten and twenty
í- ni –te- fí ni- ɔgbɔlɔ
pre four top and twenty

ini 'and' is a lexical item in Èki ròmì. We presume that the deletion of first the initial vowel, followed by the second one in the lexical item resulted in the realization of the output of lexical items in table 3 above.

The morphological process of the lexical items above, attests addition of basic numbers 1-10 to twenty. Note that in 10-20 only the lexical item from 1-4 are added. (see sections 1 and 2). Thirty-five to thirty-nine also attest subtraction of units 5-1 that is íʃoni, í- niŋi, í- sasi, í- diànì and e- kìnì from the next unit. The next unit in question here is the multiple of ɔgbɔlɔ 'twenty' (20x2). The morphemes for thirty five to thirty nine are as in (4) thus:

4. í- ʃoní –le- ɔgbɔ́ɔlɔ í- diànì í- niŋí –le- ɔgbɔ́lɔ í- diànì
Pre-five top twenty pre- two pre- four top twenty pre-two
ì- sàsí –le- ɔgbɔ́lɔ í- diàní –le- ɔgbɔ́lɔ í- diànì
Pre-three top twenty pre- two pre-two top twenty pre-two
e- kìní –le- ɔgbɔ́lɔ í-diànì
pre- one pre- twenty pre-two

The subtraction observed in units thirty five to thirty nine is similar to the one analyzed in (2). In addition, the lexical item for twenty is multiplied by two.

4. Forty –Four Hundred

The numbering from forty to three-ninety-four is similar to the numbering from twenty to forty. Table 4 presents data on such numbering.

Table V

figure	Counting system	Èkiròmì		Gloss
41	1+(20x2)	ekìníngbɔdianì	one and twenty multiplied by two	forty one
42	2+(20x2)	ídiàníɡbɔdiànì	two and twenty multiplied by two	forty two
43	3+(20x2)	ísasíɡbɔdiànì	three and twenty multiplied by two	forty three
44	4+(20x2)	ìniŋínigbɔdiànì	four and twenty multiplied by two	forty four
45	5+(20x2)	íʃonínigbɔdiànì	five and twenty multiplied by two	forty five
46	6+(20x2)	íʧánasínigbɔdiànì	six and twenty multiplied by two	forty six
47	7+(20x2)	íʧenèʧínigbɔdiànì	seven and twenty multiplied by two	forty seven
48	8+(20x2)	àananinigbɔdiànì	eight and twenty multiplied by two	forty eight
49	9+(20x2)	òkpolòʃínigbɔdiànì	nine and twenty multiplied by two	forty nine
50	10+(20x2)	ìyofínigbɔdiànì	ten and twenty multiplied by two	fifty
51	(1+10)+(20x2)	ekìtefínigbɔdiànì	one top ten and twenty multiplied by two	fifty one
52	(2+10)+(20x2)	ídiàtefínigbɔdiànì	two top ten and twenty multiplied by two	fifty two
53	(3+10)+(20x2)	ísatefínigbɔdiànì	three top ten and twenty	fifty three
54	(4+10)+(20x2)	ínitefínigbɔdiànì	four top ten and twenty multiplied by two	fifty four

55	-5+(20x3)	íʃonílegbósasi	five less twenty multiply by three	fifty five
56	-4+(20x3)	ìniŋílegbósas	four less twenty multiply by three	fifty six
57	-3+(20x3)	ísasílegbósasi	three less twenty multiply by three	fifty seven
58	-2+(20x3)	ídiànílegbósasi	two less twenty multiply by three	fifty eight
59	-1+(20x3)	ekìnílegbósai	one less twenty multiply by three	fifty nine
60	20x3	igbósasi	twenty multiply by three	Sixty
61	1+(20x3)	ekìnínigbósasi	one and twenty multiply by three	sixty one
62	2+(20x3)	ídiànínigbósasi	two and twenty multiply by three	sixty two
63	3+(20x3)	ísasínigbósasi	three and twenty multiply by three	sixty three
64	4+(20x3)	ìniŋínigbósasi	four and twenty multiply by three	sixty four
65	5+(20x3)	íʃonínigbósasi	five and twenty multiply by three	sixty five
66	6+(20x3)	ítʃánasínigbósasi	six and twenty multiply by three	sixty six
67	7+(20x3)	ítʃenètʃĩnigbósasi	seven and twenty multiply by three	sixty seven
68	8+(20x3)	ànaninigbósasi	eight and twenty multiply by three	sixty eight
69	9+(20x3)	òkpolòʃínigbósasi	nine and twenty multiply by three	sixty nine
70	10+(20x3)	ìyofĩnigbósasi	ten and twenty multiply by three	Seventy
71	(1+10)+(20x3)	ekìtefínigbósasi	one top ten and twenty multiply by three	seventy one
72	(2+10)+(20x3)	ídiàtefin igbósasi	two top ten and twenty multiply by three	seventy two
73	(3+10)+(20x3)	ísatefínigbósasi	three top ten and twenty multiply by three	seventy three
74	(4+10)+(20x3)	ínitefín igbósasi	four top ten and twenty multiply by three	seventy four
75	-5+(20x4)	íʃonílegbóniŋi	five less twenty multiply by four	seventy five
76	-4+(20x4)	ìniŋílegbóniŋi	four less twenty multiply by four	seventy six
77	-3+(20x4)	ísasílegbóniŋ	three less twenty multiply by four	seventy seven
78	-2+(20x4)	ídiànílegbóniŋ	two less twenty multiply by four	seventy eight
79	-1+(20x4)	ekìnílegbóniŋi	one less twenty multiply by four	seventy nine
80	20x4	igbóniŋi	twenty multiply by four	Eighty
81	1+(20x4)	ekìnígbóniŋi	one and twenty multiply by four	eighty one
82	2+(20x4)	ídiànígbóniŋi	two and twenty multiply by four	eighty two
83	3+(20x4)	ísasínigbóniŋi	three and twenty multiply by four	eighty three
84	4+(20x4)	ìniŋinigbóniŋi	four and twenty multiply by four multiply by four	eighty four
85	5+(20x4)	íʃonínigbóniŋi	five and twenty multiply by four	eighty five
86	6+(20x4)	ítʃánanigbóniŋi	six and twenty multiply by four	eighty six
87	7+(20x4)	ítʃenètʃĩnigbóniŋi	seven and twenty multiply by four	eighty seven
88	8+(20x4)	ànaniŋínigbóniŋi	eight and twenty multiply by four	eighty eight
89	9+(20x4)	òkpolòʃínigbóniŋi	nine and twenty multiply by four	eighty nine
90	10+(20x4)	ìyofĩnigbóniŋi	ten and twenty multiply by four	Ninety
91	(1+10)+(20x4)	ekìtefínigbóniŋi	one top ten and twenty multiply by four	ninety one
92	(2+10)+(20x4)	ídiàtefínigbóniŋi	two top ten and twenty multiply by four	ninety two
93	(3+10)+(20x4)	ísatefínigbóniŋi	three top ten and twenty multiply by four	ninety three
94	(4+10)+(20x4)	ínitefínigbóniŋi	four top ten and twenty multiply by four	ninety four
95	-5+(20x5)	íʃonílegbóonì	five less twenty multiply by five	ninety five
96	-4+(20x5)	ìniŋílegbóʃonì	four less twenty multiply by five	ninety six
97	-3+(20x5)	ísàsílegbóʃonì	three less twenty multiply by five	ninety seven
98	-2+(20x5)	ídiànlegbóʃonì	two less twenty multiply by five	ninety eight
99	-1+(20x5)	ekìnílegbóʃonì	one less twenty multiply by five	ninety nine
40	20x5	igbóʃonì	twenty multiply by five	one hundred
101	1+(20x5)	ekìnínigbóʃonì	one and twenty multiply by five	one hundred and one
102	2+(20x5)	ídiànínigbóʃonì	two and twenty multiply by five	one hundred and two
103	3+(20x5)	ísàsínigbóʃonì	three and twenty multiply by five	one hundred and three
104	4+(20x5)	ìniŋínigbóʃonì	four and twenty multiply by five	one hundred and four
105	5+(20x5)	íʃonínigbóʃonì	five and twenty multiply by five	one hundred and five
106	6+(20x5)	ítʃánasínigbóʃonì	six and twenty multiply by five	one hundred and six
107	7+(20x5)	ítʃenètʃĩgbóʃonì	seven and twenty multiply by five	one hundred and seven

108	8+(20x5)	ànanínigbɔ́ʃonì	eight and twenty multiply by five	one hundred and eight
109	9+(20x5)	òkpolòʃnigbɔ́ʃonì	nine and twenty multiply by five	one hundred and nine
110	10+(20x5)	ìyofínigbɔ́ʃonì	ten and twenty multiply by five	one hundred and ten
111	(1+10)+(20x5)	ekìtefínigbɔ́ʃonì	one top ten and twenty multiply by five	one hundred and eleven
112	(2+10)+(20x5)	ídìàtefínigbɔ́ʃonì	two top ten and twenty multiply by five	one hundred and twelve
113	(3+10)+(20x5)	Ísatefinigbɔ́ʃonì	three top ten and twenty multiply by five	one hundred and thirteen
114	(4+10)+(20x5)	ínitefínigbɔ́ʃonì	Four top ten and twenty multiply by five	one hundred and fourteen
115	-5+(20x6)	íʃonílegbɔ́ʧánasi	Five less twenty multiply by six	one hundred and fifteen
116	-4+(20x6)	ìninjílegbɔ́ʧánasi	Four less twenty multiply by six	one hundred and sixteen
117	-3+(20x6)	ísàsílegbɔ́ʧánasi	three less twenty multiply by six	one hundred and seventeen
118	-2+(20x6)	ídiànílegbɔ́ʧánasi	Two less twenty multiply by six	one hundred and eighteen
119	-1+(20x6)	ekìnlegbɔ́ʧánasi	One less twenty multiply by six	one hundred and nineteen
120	20x6	igbɔ́ʧánasi	twenty multiply by six	one hundred and twenty
121	1+(20x6)	ekìnínigbɔ́ʧánasi	one top twenty multiply by six	one hundred and twenty one
122	2+(20x6)	idianigbɔ́ʧánasi	two top twenty multiply by six	one hundred and twenty two
123	3+(20x6)	ísasínigbɔ́ʧánasi	three top twenty multiply by six	one hundred and twenty three
124	4+(20x6)	ínijínigbɔ́ʧánasi	four top twenty multiply by six	one hundred and twenty four
125	5+(20x6)	íʃonínigbɔ́ʧánasi	five top twenty multiply by six	one hundred and twenty five
126	6+(20x6)	íʧánasínigbɔ́ʧánasi	Six top twenty multiply by six	one hundred and twenty six
127	7+(20x6)	íʧenèʧìnigbɔ́ʧánasi	seven top twenty multiply by six	one hundred and twenty seven
128	8+(20x6)	àninjínigbɔ́ʧánasi	eight top twenty multiply by six	one hundred and twenty eight
129	9+(20x6)	òkpolòʃínigbɔ́ʧánasi	nine top twenty multiply by six	one hundred and twenty nine
130	10+(20x6)	ìyofiínigbɔ́ʧánasi	Ten top twenty multiply by six	one hundred and thirty
131	(1+10)+(20x6)	ekìtefiínigbɔ́ʧánasi	one top ten and twenty multiply by six	one hundred and thirty one
132	(2+10)+(20x6)	ídiàtefiigbɔ́ʧánasi	two top ten and twenty multiply by six	one hundred and thirty two
133	(3+10)+(20x6)	ísatefínigbɔ́ʧánasi	three top ten and twenty multiply by six	one hundred and thirty three
134	(4+10)+(20x6)	ínitefínigbɔ́ʧánasi	four top ten and twenty multiply by six	one hundred and thirty four
135	-5+(20x7)	íʃonílenigbɔ́ʧenèʧì	five less twenty multiply by seven	one hundred and thirty five
136	-4+(20x7)	ínijílegbɔ́ʧenèʧì	four less twenty multiply by seven	one hundred and thirty six
137	-3+(20x7)	ísasílenigbɔ́ʧenèʧì	three less twenty multiply by seven	one hundred and thirty seven
138	-2+(20x7)	ídiànilenigbɔ́ʧenèʧì	two less twenty multiply by seven	one hundred and thirty eight
139	-1+(20x7)	ekìnílenigbɔ́ʧenèʧì	one less twenty multiply by seven	one hundred and thirty nine
140	20x7	igbɔ́ʧenèʧì	twenty multiply by seven	one hundred and forty
141	1+(20x7)	ekìnínigbɔ́ʧenèʧì	one top twenty multiply by seven	one hundred and forty one
142	2+(20x7)	ídiànínigbɔ́ʧenèʧì	two top twenty multiply by seven	one hundred and forty two
143	3+(20x7)	ísasínigbɔ́ʧenèʧì	three top twenty multiply by seven	one hundred and forty three
144	4+(20x7)	ínijínigbɔ́ʧenèʧì	four top twenty multiply by seven	one hundred and forty four
145	5+(20x7)	íʃonínigbɔ́ʧenèʧì	five top twenty multiply by seven	one hundred and forty five
146	6+(20x7)	íʧánasínigbɔ́ʧenèʧì	six top twenty multiply by seven	one hundred and forty six
147	7+(20x7)	íʧenèʧìnigbɔ́ʧenèʧì	seven top twenty multiply by seven	one hundred and forty seven
148	8+(20x7)	àninjínigbɔ́ʧenèʧì	eight top twenty multiply by seven	one hundred and forty eight
149	9+(20x7)	òkpolòʃínigbɔ́ʧenèʧì	nine top twenty multiply by seven	one hundred and forty nine
150	10+(20x7)	ìyofínigbɔ́ʧenèʧì	ten and twenty multiply by seven	one hundred and fifty
151	(1+10)+(20x7)	ekìnitefínigbɔ́ʧenèʧì	one top ten and twenty multiply by seven	one hundred and fifty one
152	(2+10)+(20x7)	ídiàtefinigbɔ́ʧenèʧì	two top ten and twenty multiply by seven	one hundred and fifty two
153	(3+10)+(20x7)	ísatefinigbɔ́ʧenèʧì	three top ten and twenty multiply by seven	one hundred and fifty three
154	(4+10)+(20x70	iínitefinigbɔ́ʧenèʧì	four top ten and twenty multiply by seven	one hundred and fifty four
155	-5+(20x8)	íʃonílenigbànanìŋi	five less twenty multiply by eight	one hundred and fifty five
156	-4+(20x8)	ininjílegbànanìŋi	four less twenty multiply by eight	one hundred and fifty six
157	-3+(20x8)	ísasílegbànaniŋ	three less twenty multiply by eight	one hundred and fifty seven
158	-2+(20x8)	ídianílegbànaniŋ	two less twenty multiply by eight	one hundred and fifty eight

159	-1+(20x8)	ekìnílegbànanì	one less twenty multiply by eight	one hundred and fifty nine
160	20x8	igbànaniŋi	twenty multiply by eight	one hundred and sixty
161	1+(20x8)	ekìnígbànaniŋi	one top twenty multiply by eight	one hundred and sixty one
162	2+(20x8)	ídianígbànaniŋi	two top twenty multiply by eight	one hundred and sixty two
163	3+(20x8)	ísasínigbànaniŋi	three top twenty multiply by eight	one hundred and sixty three
164	4+(20x8)	íniŋìgbànaniŋi	four top twenty multiply by eight	one hundred and sixty four
165	5+(20x8)	íʃonínigbànaniŋi	five top twenty multiply by eight	one hundred and sixty five
166	6+(20x8)	ítʃánasínigbànaniŋi	six top twenty multiply by eight	one hundred and sixty six
167	7+(20x8)	ítʃenètʃînigbànaniŋi	seven top twenty multiply by eight	one hundred and sixty seven
168	8+(20x8)	àniniŋínigbànaniŋi	eight top twenty multiply by eight	one hundred and sixty eight
169	9+(20x8)	òkpolòʃínigbànaniŋi	nine top twenty multiply by eight	one hundred and sixty nine
170	10+(20x8)	ìyofínigbànaniŋi	ten and twenty multiply by eight	one hundred and seventy
171	(1+10)+(20x8)	ekìtefínigbànaniŋi	one top ten and twenty multiply by eight	one hundred and seventy one
172	(2+10)+(20x8)	ídiàtefínigbànaniŋi	two top ten and twenty multiply by eight	one hundred and seventy two
173	(3+10)+(20x8)	ísatefínigbànaniŋi	three top ten and twenty multiply eight	one hundred and seventy three
174	(4+10)+(20x8)	ínitefínigbànaniŋi	four top ten and twenty multiply by eight	One hundred and seventy four
175	-5+(20x9)	íʃonílenigbokpolòʃi	five less twenty multiply by nine	one hundred and seventy five
176	-4+(20x9)	íniŋílenigbokpolòʃi	four less twenty multiply by nine	one hundred and seventy six
177	-3+(20x9)	ísasílenigbokpolòʃi	three less twenty multiply by nine	one hundred and seventy seven
178	-2+(20x9)	ídiànílenigbokpolòʃì	two less twenty multiply by nine	one hundred and seventy eight
179	-1+(20x9)	ekìnílenigbolpoloʃi	one less twenty multiply by nine	one hundred and seventy nine
180	20x9	igbolpoloʃi	twenty multiply by nine	one hundred and eighty
181	1+(20x9)	ekìnínigbolpoloʃi	one top twenty multiply by nine	one hundred and eighty one
182	2+(20x9)	ídiànínigbolpoloʃi	two top twenty multiply by nine	one hundred and eighty two
183	3+(20x9)	ísàsínigbolpoloʃi	three top twenty multiply by nine	one hundred and eight three
184	4+(20x9)	ìniŋínigbolpoloʃi	four top twenty multiply by nine	one hundred and eighty four
185	5+(20x9)	íʃonínigbolpoloʃi	five top twenty multiply by nine	one hundred and eighty five
186	6+(20x9)	ítʃánaʃínigbolpoloʃi	six top twenty multiply by nine	one hundred and eighty six
187	7+(20x9)	ítʃenètʃînigbolpoloʃi	seven top twenty multiply by nine	one hundred and eighty seven
188	8+(20x9)	àniniŋínigbolpoloʃi	eight top twenty multiply by nine	one hundred and eighty eight
189	9+(20x9)	òkpolòʃínigbolpoloʃi	nine top twenty multiply by nine	one hundred and eighty nine
190	10+(20x9)	ìyofinigbolpoloʃi	ten and twenty multiply by 9	one hundred and ninety
191	(1+10)+(20x9)	ekìtefínigbolpoloʃi	one top ten and twenty multiply by nine	one hundred and ninety one
192	(2+10)+(20x9)	ídiàtefínigbolpoloʃi	two top ten and twenty multiply by nine	one hundred and ninety two
193	(3+10)+(20x9)	ísasítefinigbolpoloʃi	three top ten and twenty multiply by nine	one hundred and ninety three
194	(4+10)+(20x9)	ínitefínigbolpoloʃi	four top ten and twenty multiply by nine	one hundred and ninety four
195	-5+(20x10)	íʃonílegbɔfî	five less twenty multiply by ten	one hundred and ninety five
196	-4+(20x10)	íniŋílegbɔfî	four less twenty multiply by ten	one hundred and ninety six
197	-3+(10+20)	ísasílegbɔfî	three less twenty multiply ten	one hundred and ninety seven
198	-2+(20x10)	ídiànílegbɔfi	two less twenty multiply by ten	one hundred and ninety eight
199	-1+(20x10)	ekìnílegbɔfi	one less twenty multiply by ten	one hundred and ninety nine
200	20x10	igbɔfi	twenty multiply by ten	two hundred
220	20x11	igbekìtefi	two less twenty multiply by eleven	two-hundred and twenty
240	20x12	igbídiàtefi	one less twenty multiply by twelve	two-hundred and forty
260	20x13	igbísatefi	twenty multiply by thirteen	two hundred and sixty
280	20x14	igbínitefi	twenty multiply by fourteen	two-hundred and eighty
300	20x15	igbɔʃoníle	twenty multiply by fifteen	three hundred
320	20x16	igbɔniŋílɔgbɔlɔ	twenty multiply by sixteen	three hundred and twenty
340	20x17	igbɔsasílɔgbɔlɔ	twenty multiply by seventeen	three hundred and forty
360	20x18	igbɔdiáílɔgbɔlɔ	twenty multiply by eighteen	three hundred and sixty
380	20x19	igbekìnlɔgbɔlɔ	twenty multiply by nineteen	twenty six three hundred and eighty
400	20x20	iyumi	twenty multiply by twenty	four hundred

Table v shows that Èkiròmì co unting system has four hundred as a separate unit. The attested unit is iyum(i) four hundred. From 400 the data collected show the manipulation of the few basic lexical items of numerals in an interesting to express higher numerals. In the language, iyumi (400)can be multiply by iyumi (400) to arrive at iyumiyumi (400x400. The implication is that the language is able to express (iyumi) ^{n} four hundred multiply by infinitive (400 ^{n}).

4. Conclution

The paper proves that Èkiròmì numeral is made up of prefix and suffix attached to root morphemes . 1 'one' has two variants 'ígboni' and 'ekìnì' . Ekini is the morpheme for one that is involved in Èkiròmì computation. It also observed that the most frequently used variant , îgbonì has a connotation of position in the counting system . The lexical item for 'ɔgbɔlɔ' '20' also has an allomorph. While ɔgbɔlɔ can occur in isolation as well as word final positions, igbɔ only occurs in word initial position. The paper has some mathematical implication - the lower denomination to be added or subtracted , always appear to the left of the higher one . The above claim has not been made in any language as far as we know . Furthermore, Èkiròmì attest three bundl es as: ìyofi 'ten', ɔgbɔlɔ 'twenty' and iyumi 'four hundred'. Units 1-4 are added to 10 'ìyofi', 1-10 are added to 20 'ɔgbɔlɔ' or multiples of twenty as well as 400 iyumi and multiples of 400.

The lexical item for zero is ńtĩ . ńtĩ may mean anything o r nothing. As in:

5. Olú yási ńtĩ ye

Olú takes anything neg
'Olú did not score anything'
ńtĩ mi ọ́ toni bá gí ọ bá yasì,
anything that he/she bring come that you aspect take
you have to accept anything he/she brings .'

Foot Notes

1. Àbèsàbèsì, formed from the root morpheme Àbèsì 'we' is the name Agoyi (2008) suggested for the language family known as Akpes in literature. The lexical item is the acceptable common terms of reference by speakers of all the four lects within the language family.
2. The final vowels of these lexical normally deleted in the speech of the native speakers. But the language operates a constraint that says NO CODA that is the syllable structure does not allow a closure. The constraint explains the occurrence of a high tone when the lexical items.

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University, Akungba -Akoko. Ondo, Nigeria.

Table VI

No	Counting	Èkiròmì		Gloss
401	1+400	ekiniyumi	one and four hundred	four hundred and one
402	2+400	idiàniyumi	two and four hundred	four hundred and two
403	3+400	ísaniyumi	three and four hundred	four hundred and three
404	4+400	íniniyumi	four and four hundred	four hundred and four
405	5+400	íʃoniyumi	five and four hundred	four hundred and five
406	6+400	íʧanaaniyumi	six and four hundred	four hundred and six
407	7+400	íʧeneʧìniyumi	seven and four hundred	four hundred and seven
408	8+400	ànàniniyumi	eight and four hundred	four hundred and eight
409	9+400	òkpòlòʃiniyumi	nine and four hundred	four hundred and nine
410	10+400	ìyofiniyumi	ten and four hundred	four hundred and ten
411	1+10+(400)	ekìtefiniyumi	one top ten and four hundred	four hundred and eleven
412	2+10+400)	ídiàtefiniyumi	two top ten and four hundred	four hundred and twelve
413	3+20+(400)	ísatefiniyumi	three top ten and four hundred	four hundred and thirteen
414	4+10+(400)	ínitefiniyumi	four top ten and four hundred	four hundred and fourteen
415	-5++20+(400)	íʃolɔgbɔlɔniyumi	less five from twenty and four hundred	four hundred and fifteen
416	-4+20+(400)	ínilɔgbɔlɔniyumi	less four twenty and four hundred	four hundred and sixteen
417	-3+20+(400)	ísalɔgbɔlɔniyumi	less three from twenty and four hundred	four hundred and seventeen
418	-2+20+(400)	ídialɔgbɔlɔniyumi	less two from twenty four hundred	four hundred and eighteen
419	-1+20 +(400)	ekìlɔgbɔlɔniyumi	less one from twenty and four hundred	four hundred and nineteen
420	20+400	ɔgbɔlɔniyumi	twenty and four hundred	four hundred and twenty
421	1+20+400	ekìnɔgbɔlɔniyumi	one and twenty and four hundred	four hundred and twenty one
422	2+20+400	ídiànɔgbɔlɔniyumi	one and twenty and four hundred	four hundred and twenty two
423	3+20+400	ísaniɔgbɔlɔniyumi	three and twenty and four hundred	four hundred and twenty three
424	4+20+400	íninɔgbɔlɔniyumi	four and twenty and four hundred	four hundred and twenty four
425	5+20+400	íʃoniyumi	five and twenty and four hundred	four hundred and twenty five
426	6+20+400	íʧanaanɔgbɔlɔniyumi	six and twenty and four hundred	four hundred and twenty six
427	7+20+400	íʧeneʧìnɔgbɔlɔniyumi	seven and twenty and four hundred	four hundred and twenty seven
428	8+20+400	ànàninɔgbɔlɔniyumi	eight and twenty and four hundred	four hundred and twenty eight
429	9+20+400	òkpòlòʃinɔgbɔlɔniyumi	nine and twenty and four hundred	four hundred and twenty nine
430	10+20+400	ìyofinɔgbɔlɔniyumi	ten and twenty and four hundred	four hundred and thirty
431	(1+10) +(20+400)	ekìtefínɔgbɔlɔyumi	one top ten and twenty and four hundred	four hundred and thirty one
432	(2+10)+(20+400)	ídiàtefínɔgbɔlɔniyumi	two top ten and twenty and four hundred	four hundred and thirty two
433	(3+10)+(20+400)	ísatefínɔgbɔlɔniyumi	three top and twenty and four hundred	four hundred and thirty three
434	(4+10)+(20+400)	ínitefínɔgbɔlɔniyumi	four top ten and twenty and four hundred	four hundred and thirty four
435	-5+(20x2)+400	íʃonílegbɔdiàniyumi	less five from twenty and four hundred	four hundred and thirty five
436	-4+(20x2)+400	íniɲílegbɔdiàniyumi	less four from twenty and four hundred	four hundred and thirty six
437	-3+(20x2)+400	ísasílegbɔdiàniyumi	less three from twenty and four hundred	four hundred and thirty seven
438	-2+(20x2)+400	ídianílegbɔdiàniyumi	less two from twenty and four hundred	four hundred and thirty eight
439	-1+(20x2)+400	ekìílegbɔdiàniyumi	less one from twenty and four hundred	four hundred and thirty nine
440	(20x2)+400	igbɔdiàniyumi	twenty multiply by two and four hundred	four hundred and forty

Tables V and VI show the manipulation of the few basic lexical items for numerals in an interesting to express higher numerals. I-IV Findings reveal that Èkiròmì count ing system attests similar addition subtraction and multiplication up to (iyumi) ^{n} four hundred multiply by infinitive (400 ^{n}).

6. Conclution

The paper proves that a lexical item Èkiròmì numeral is made up of prefix and suffix attached to root morphemes. 1 'one' has two variants 'ígboni' and 'ekìnì'. ekni is th e is the morpheme for one that is involved in Èkiròmì computation.

It is also the most frequently used variant, îgbonì h as a connotation of position in the counting system. The lexical item for '20' also has an allomorph. While ɔgbɔlɔ can occur in isolation as well as word final positions, igbɔ only occurs in word initial position. The paper has some mathematical implication- the lower denomination to be added or subtracted, always appear to the left of the higher one. The above claim has not been made in any language as far as we know. Furthermore, Èkiròmì attest three bundles as: ìyofi 'ten', ɔgbɔlɔ 'twenty' and iyumi 'four hundred'. Units 1-4 are added to 10 'ìyofi', 1-10 are added to 20 'ɔgbɔlɔ' or multiples of twenty as well as 400 iyumi and multiples of 400.
The lexical item for zero is ńtĩ . ńtĩ may mean anything or nothing . As in:

7. Olú yási ńtĩ ye

Olú takes anything n eg
'Olú did not score anything'
ńtĩ mi ọ́ toni bá gí ọ bá yasì,
anything that he/she bring come that you aspect take
you have to accept anything he/she brings .'

———

Foot Notes

3. Àbèsàbèsì, formed from the root morpheme Àbèsì 'we' is the name Agoyi (2008) suggested for the language family known as Akpes in literature. The lexical item is the acceptable common terms of reference by speakers of all the four lects within the language family.
4. The final vowels of these lexical normally deleted in the speech of the native speakers. But the language operates a constraint that says NO CODA that is the syllable structure does not allow a closure. The constraint explains the occurrence of a high tone when the lexical items.

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