

The New-Old Numerals or Why this sucks

Well, it does suck. To begin with, calling it the 'new numbers' is something of a contradiction, because although they haven't been in colloquial use for a long long time, they are actually very old numbers.

It works this way:

1. Q-Celtic inherits a decimal system (based on 10s) from Indo-European
2. This develops into a vigesimal (based on 20s) system from the old "outdated" decimal system. This is because Old Irish educators decided it was too difficult for children to learn maths in a decimal system. Swipe at the people who came up with this nonsense about vigesimal number systems being too unwieldy for maths intended.
3. This system is then in use for a long time until "modern educators" get their hands on Irish and Gaelic and change it all back

... Talking nonsense, are we? Let's take an excerpt from a Basque textbook then, a people who is lightyears ahead of Gaelic in terms of language planning. We find equations which read *hirurehun ta larogeita hamabi zati berrogeita bederatzi berdin zortzi*, literally "three hundred and four-twenty-and ten-two divide two-twenty-and nine equal eight".

Incidentally, the Basques do calculus with these numbers and no children have been diagnosed with cortical meltdown yet ...

For those who are curious the Old Irish numbers were as follows (modern forms in green - interestingly, they are derived from the old genitive forms):

deich	fiche (gen. fichet)	tricho (gen. trichot)	cethorcho (gen. cethorchat)	coíca (gen. coícat)
deich	fichead	trithead	ceathrad	caogad
10	20	30	40	50
sesca (gen. sescot)	sechtmogo (gen. sechtmogat)	ochtmoga (gen. ochtmugat)	nócha (gen. nóchat)	cét (gen. céit)
seasgad	seachdad	ochdad	naochad	ceud
60	70	80	90	100

Which one to use? Up to you, but you'll have to learn both anyway. Children in GME learn only the new-old system, but you will come across the traditional system all over and many older speakers don't know the new-old system ... so at least for the time being we're stuck with TWO of them <sigh>. Almost as efficient as Great Comrade Mao Zedongs spelling reform. Don't ask.

On the other hand, having the two systems side by side has its uses too. In the traditional way talking about decades is slightly cumbersome, at least with certain numbers e.g. the thirties as *na deich ar fhicheadan* is just weird - but the new old numbers work excellently here:

na ficheadan	na tritheadan	na ceathradan	na caogadan
the twenties	the thirties	the forties	the fifties
na seasgadan	na seachdadan	na h-ochdadan	na naochadan
the sixties	the seventies	the eighties	the nineties

We recommend you learn the old system and use it and simply be aware of the new-old system, perhaps just using the above terms for decades in the new-old system. And pay attention who you are talking to - children from GME often mistake *trì fichead* for *trithead*!

Another reason this sucks is that it does not only force learners to learn TWO number systems, but the new-old system isn't that straightforward either as they may think. Although in counting the general approach is to say the number and then the object being counted e.g. *ochdad is a seachd guib* '87 beaks' there seems to be a certain amount of confusion even amongst the propagators of the new old systems about this. Apparently you have a choice of saying either *ochdad gob is a seachd* or *ochdad is a seachd guib*, except when doing calculations when you are supposed to put it at the end always ... confused? You're not on your own then ... at least the traditional system is consistent.

As you will have noticed, the traditional way of counting gets (relatively) straightforward after 40. So we are going to give you the new-old numbers only up to 50 plus the full tens and a few higher numbers.

N ^o	counting	cardinal numbers	ordinal numbers
0	a neoini	neoini gob neoini bròg	- -
1	a h-aon	aon ghob aon bhròg	a' chiad ghob a' chiad bhròg
2	a dhà	dà ghob dà bhròig	an dàrna gob an dàrna bròg
3	a trì	trì guib trì brògan	an treas gob an treas bròg
4	a ceithir	ceithir guib ceithir brògan	an ceathramh gob a' cheathramh bròg
5	a cóig	cóig guib cóig brògan	an cóigeamh gob a' chóigeamh bròg
6	a sia	sia guib sia brògan	an siathamh gob an t-siathamh bròg
7	a seachd	seachd guib seachd brògan	an seachdamh gob an t-seachdamh bròg
8	a h-ochd	ochd guib ochd brògan	an t-ochdamh gob an ochdamh bròg
9	a naoi	naoi guib naoi brògan	an naoidheamh gob an naoidheamh bròg
10	a deich	deich gob deich bròg	an deicheamh gob an deicheamh bròg
11	a h-aon deug	aon ghob deug aon bhròg dheug	an t-aonamh gob deug an aonamh bròg dheug
12	a dhà dheug	dà ghob deug dà bhròig dheug	an dàrna gob deug an dàrna bròg dheug
13	a trì deug	trì guib dheug trì brògan deug	an treas gob deug an treas bròg dheug
14	a ceithir deug	ceithir guib dheug ceithir brògan deug	an ceathramh gob deug a' cheathramh bròg dheug

15	a cóig deug	cóig guib dheug cóig brògan deug	an cóigeamh gob deug a' chóigeamh bròg dheug
16	a sia deug	sia guib dheug sia brògan deug	an siathamh gob deug an t-siathamh bròg dheug
17	a seachd deug	seachd guib dheug seachd brògan deug	an seachdamh gob deug an t-seachdamh bròg dheug
18	a h-ochd deug	ochd guib dheug ochd brògan deug	an t-ochdamh gob deug an ochdamh bròg dheug
19	a naoi deug	naoi guib dheug naoi brògan deug	an naoitheamh gob deug an naoitheamh bròg dheug
20	fichead	fichead gob fichead bròg	am ficheadamh gob an fhicheadamh bròg
21	fichead is a h-aon	fichead is a h-aon ghob fichead is a h-aon bhròg	am ficheadamh gob is a h-aon an fhicheadamh bròg is a h-aon
22	fichead is a dhà	fichead is a dhà gob fichead is a dhà bròg	am ficheadamh gob is a dhà an fhicheadamh bròg is a dhà
23	fichead is a trì	fichead is a trì guib fichead is a trì brògan	am ficheadamh gob is a trì an fhicheadamh bròg is a trì
24	fichead is a ceithir	fichead is a ceithir guib fichead is a ceithir brògan	am ficheadamh gob is a ceithir an fhicheadamh bròg is a ceithir
25	fichead is a cóig	fichead is a cóig guib fichead is a cóig brògan	am ficheadamh gob is a cóig an fhicheadamh bròg is a cóig
26	fichead is a sia	fichead is a sia guib fichead is a sia brògan	am ficheadamh gob is a sia an fhicheadamh bròg is a sia
27	fichead is a seachd	fichead is a seachd guib fichead is a seachd brògan	am ficheadamh gob is a seachd an fhicheadamh bròg is a seachd
28	fichead is a h-ochd	fichead is a h-ochd guib fichead is a h-ochd brògan	am ficheadamh gob is a h-ochd an fhicheadamh bròg is a h-ochd
29	fichead is a naoi	fichead is a naoi guib fichead is a naoi brògan	am ficheadamh gob is a naoi an fhicheadamh bròg is a naoi
30	trithead	trithead gob trithead bròg	an tritheadamh gob an tritheadamh bròg
31	trithead is a h-aon	trithead is a h-aon gob trithead is a h-aon bròg	an tritheadamh gob is a h-aon an tritheadamh bròg is a h-aon
32	trithead is a dhà	trithead is a dhà guib trithead is a dhà brògan	an tritheadamh gob is a dhà an tritheadamh bròg is a dhà
33	trithead is a trì	trithead is a trì guib trithead is a trì brògan	an tritheadamh gob is a trì an tritheadamh bròg is a trì
34	trithead is a ceithir	trithead is a ceithir guib trithead is a ceithir brògan	an tritheadamh gob is a ceithir an tritheadamh bròg is a ceithir
35	trithead is a cóig	trithead is a cóig guib trithead is a cóig brògan	an tritheadamh gob is a cóig an tritheadamh bròg is a cóig
36	trithead is a sia	trithead is a sia guib trithead is a sia brògan	an tritheadamh gob is a sia an tritheadamh bròg is a sia
37	trithead is a seachd	trithead is a seachd guib trithead is a seachd brògan	an tritheadamh gob is a seachd an tritheadamh bròg is a seachd
38	trithead is a h-ochd	trithead is a h-ochd guib trithead is a h-ochd brògan	an tritheadamh gob is a h-ochd an tritheadamh bròg is a h-ochd

39	trithead is a naoi	trithead is a naoi guib trithead is a naoi brògan	an tritheadamh gob is a naoi an tritheadamh bròg is a naoi
40	ceathrad	ceathrad gob ceathrad bròg	an ceathradamh gob a' cheathradamh bròg
41	ceathrad is a h-aon	ceathrad is a h-aon guib ceathrad is a h-aon brògan	an ceathradamh gob is a h-aon a' cheathradamh bròg is a h-aon
42	ceathrad is a dhà	ceathrad is a dhà guib ceathrad is a dhà brògan	an ceathradamh gob is a dhà a' cheathradamh bròg is a dhà
42	ceathrad is a trì	ceathrad is a trì guib ceathrad is a trì brògan	an ceathradamh gob is a trì a' cheathradamh bròg is a trì
44	ceathrad is a ceithir	ceathrad is a ceithir guib ceathrad is a ceithir brògan	an ceathradamh gob is a ceithir a' cheathradamh bròg is a ceithir
45	ceathrad is a cóig	ceathrad is a cóig guib ceathrad is a cóig brògan	an ceathradamh gob is a cóig a' cheathradamh bròg is a cóig
46	ceathrad is a sia	ceathrad is a sia guib ceathrad is a sia brògan	an ceathradamh gob is a sia a' cheathradamh bròg is a sia
47	ceathrad is a seachd	ceathrad is a seachd guib ceathrad is a seachd brògan	an ceathradamh gob is a seachd a' cheathradamh bròg is a seachd
48	ceathrad is a h-ochd	ceathrad is a h-ochd guib ceathrad is a h-ochd brògan	an ceathradamh gob is a h-ochd a' cheathradamh bròg is a h-ochd
49	ceathrad is a naoi	ceathrad is a naoi guib ceathrad is a naoi brògan	an ceathradamh gob is a naoi a' cheathradamh bròg is a naoi
50	caogad	caogad gob caogad bròg	an caogadamh gob a' chaogadamh bròg
60	seasgad	seasgad gob seasgad bròg	an seasgadamh gob an t-seasgadamh bròg
70	seachdad	seachdad gob seachdad bròg	an seachdadamh gob an t-seachdadamh bròg
80	ochdad	ochdad gob ochdad bròg	an t-ochdadamh gob an ochdadamh bròg
90	naochad	naochad gob naochad bròg	an naochadamh gob an naochadamh bròg
100	ceud	ceud gob ceud bròg	an ceudamh gob an ceudamh bròg

1. The new-old numbers themselves aside, the main difference between the systems is that while the traditional system loses the **ar fhichead** bit after 40, the new-old system gets rid of this altogether and simply uses decimal + **a h-aon, a dhà** ...
2. No, hundred has not been changed to **ceudad** - although there is a word **ceudad**, but this means 'percent' in Gaelic e.g. 40% = **dàichead sa cheudad**.
3. In this system, all full tens are followed by the singular forms of the nouns.
4. **Aon, dà** and the ordinal numbers behave like in the traditional system so we haven't explained all over again.

So, how do you deal with higher numbers in this system?

N ^o	counting	cardinal numbers	ordinal numbers
105	ceud is a cóig	ceud is a cóig guib	an ceudamh gob is a còig
125	ceud, fichead is a cóig	ceud, fichead gob is a cóig	an ceudamh, fichead gob is a cóig
220	dà cheud is fichead	dà cheud is fichead gob	an dà cheudamh gob fichead
400	ceithir cheud	ceithir cheud gob	an ceithir cheudamh gob
552	cóig cheud, caogad is a dhà	cóig cheud, caogad is a dhà guib	an cóig cheudamh, caogad gob is a dhà
592	cóig ceud, naochad is a dhà	cóig ceud, naochad is a dhà guib	an ceithir ceudamh, naochad gob is a dhà
1,000	mìle	mìle gob	am mìleamh gob
1,238	mìle, dà cheud, trithead is a h-ochd	mìle, dà cheud, trithead is a h-ochd guib	am mìleamh, dà cheud, trithead gob deug is a h-ochd
4,673	ceithir mìle, sia ceud, seachdad is a trì	ceithir mìle, sia ceud, seasgad is a trì guib	an ceithir mìleamh, sia ceud, trì fichead gob is trì deug
10,000	deich mìle	deich mìle gob	an deich mìleamh gob
16,745	sia mìle deug, seachd ceud, ceathrad is a cóig	sia mìle deug, seachd ceud, dàichead is a cóig guib	an sia mìleamh deug, seachd ceud, dàichead gob is a cóig
56,965	caogad mìle is sia deug, naoi ceud, seasgad is a cóig	caogad mìle is a sia, naoi ceud, seasgad is a cóig guib	an caogad mìleamh is a sia, naoi ceud, seasgad gob is a cóig
200,000	dà cheud mìle	dà cheud mìle gob	an dà cheud mìleamh gob
143,976	ceud mìle ceathrad is a trì, naoi ceud, seachdad is a sia	ceud mìle dàichead is a trì, naoi ceud, seachdad is a sia guib	an ceud mìleamh dàichead is a trì, naoi ceud, seasgad gob is a sia
999,999	naoi ceud mìle naochad is a naoi, naoi ceud, naochad is a naoi	naoi ceud mìle naochad is a naoi, naoi ceud, naochad is a naoi guib	naoi ceud mìleamh ceithir fichead is a naoi deug, naoi ceud, naochad gob is a naoi
1,000,000	mìlleamh	mìlleamh gob	am mìlleamh gob
5,867,835	cóig mìlleamh, ochd ceud mìle trì fichead is seachd, ochd ceud, cóig deug ar fhichead	cóig mìlleamh, ochd ceud mìle trithead is a seachd, ochd ceud, trithead is a cóig guib	an cóig mìlleamh, ochd ceud mìle seasgad is a seachd, ochd ceud, trithead gob is a cóig

Footnote or ten ...

1. The comma is only "notional" that is, it's a "speech break" you put in when saying the number. You don't actually write it when spelling out numbers - we just put them in here to demonstrate where the breaks would be.
2. The numbers 2-6 lenite ceud, so you get *dà cheud*, *trì cheud*, *ceithir cheud*, *cóig cheud* and *sia cheud*. This is NOT completely arbitrary but the last remaining vestiges of something Gaelic lost. Traditionally (well, several hundred years back in Gaelic terms), the number 1-6 lenite while the numbers 7-10 nasalize. Meaning? Well, seeing Irish still does this, let's have a look at how you count boats in Irish: *bád*, *dhá bhád*, *trí bhád*, *ceithre bhád*, *cúig bhád*, *sé bhád*, *seacht mbád*, *ocht mbád*, *naoi mbád*, *deich mbád*. Cool, isn't it? Gaelic stopped doing this a long time ago - except with the word *ceud* for whatever reason.

3. Between 1001 and 9999, you can employ "splitting" into hundreds as you would with a year, e.g. 1267 as *dà cheud dheag, trì fichead is a seachd*.
4. As mentioned above, there is the possibility to express numbers up to 200 in twenties e.g. 136 as *ceud, sia deug ar fhichead* or *sia fichead is a sia deug*. So 136 ice-creams would be *sia fichead reòiteag is a deich*.
5. *Leth* refers to a half of the previous largest round 100, 1.000, 10.000 etc unit. This gives a value of 50, 500, 5.000 etc. These are then combined to give 150, 1.500, 15.000 etc. Enter the "illogical" step. You might imagine that *trì cheud gu leth* equals 450. Wrong. It equals 350. This principle applies at each level (100, 1.000, 10.000 etc). You can then add the numbers 1-9 to these expressions, but once you hit the next full 10, you have to revert to the "normal" way of counting, e.g. *dà mhìle gu leth, dà mhìle gu leth is a h-aon, dà mhìle gu leth is a dhà ... dà mhìle gu leth is a naoi, dà mhìle is trì fichead*. *Leth cheud, leth mhìle* etc work the same way. Alternatively you can just stick to the "normal" numbers.
6. And last but not least, there is a tendency to stick the thing being counted at the very end with large numbers, especially with monetary units, so ¥51.655 would be *dàichead mìle, sia ceud, trì fichead is a cóig Yen* rather than *dàichead mìle, sia ceud, trì fichead Yen is a cóig*.