# SIX-LETTER NUMERICAL TAUTONYMS 

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After reading the article by Darryl Francis on numerical tautonyms in the February 1970 Word Ways, I became interested in the possibility of building one or more word squares consisting of twopart six-letter tautonyms. Since this could not be done with the 45 words listed in his article, I began a systematic search for more, and the list given below is the result.

If letters are assigned values according to their numerical positions in the alphabet, a two-part six-letter tautonym is a word in which the sum of the values of the first three letters equals the sum of the values of the last three letters. Let us call this sum the tautonymic value. Each combination of three letters from the alphabet yields a tautonymic value. (A combination is a selection of letters without regard to order; for example, $A B C$ and $C A B$ are counted as the same combination.) The lowest possible tautonymic value is, of course, 3 for AAA, and the highest possible is 78 for $Z Z Z$. The number of possible combinations increases in a regular pattern from only one combination for each of the tautonymic values 3 and 4 , to 90 different combinations with a tautonymic value of 38 . There are then $91 \mathrm{com}-$ binations for each of the tautonymic values $39,40,41$ and 42 , after which the frequency decreases in reverse order from 90 for the tautonymic value 43 to but one each for the values 77 and 78 .

One might easily assume that the larger the number of different letter combinations yielding a given tautonymic value, the greater the chance of finding numerical tautonyms with that value, but this is not always true. The 73 combinations adding to 51 produced only one tautonym, and the 40 combinations adding to 59 produced none at all. The 91 combinations adding to 39 gave 35 numerical tautonyms, the largest number for any tautonymic value, but the 91 adding to 41 produced only 10 .

The following tabulation of six-letter numerical tautonyms has been arranged by groups of words all having the same tautonymic value; within each group, words are listed alphabetically. The 45 words listed on page 11 of the February 1970 Word Ways are included
in their respective positions to make a grand total of 519. But even with this fairly respectable total, I have not yet been able to construct a $6 \times 6$ word square using only words chosen from this list. Can some reader do it?

18 canale, canela, madiah
19 belgic, bobble, flabel, pabble
20 aranea, chicle, galena, galibi, gidjee, lagado, lagena, pacane, pachak, packed
21 barasa, bardel, barhal, bendel, boddle, cembra, cochal, gamben, keeled, maggie, paddle, rabmag
22 archie, crance, foamed, obelia, racial
23 boffle, darned, daroga, fleeme, hifend, libard, libnah, maiden, sacrad, scalfe, tabard
24 alkene, boggle, gobian, higgle, jamnia, kalian, kalije, kalina, paggle, pagina, saddik
25 bubber, caunch, causae, coghle, helped, hobber, kamboh, michel, nibber, phases, rebase
26 cavate, caveat, cerate, choate, cholam, cnicin, create, crenic, engaud, garuda, geneat, genipa, gracer, negate, ocheil, peenge, pianic, reckan, tearce, vacate, vaccin
27 alnico, budder, eschar, haraya, harder, harico, hender, hijrah, hodder, indebt, jobbet, lances, lander, nidder, offerd, redbud
28 faucet, fogman, glides, iodine, keloid, manjoc, mannie, pegman, picine, pickel, pickle, picoid, raioid, raised, reebok, reesed, shades, shaikh, shaman, sharia, wadman
29 blobby, buffer, buffin, cayuga, chroma, finnan, freath, gaufer, gaufre, hatted, hillel, hilted, isaias, moated, omagua, palais, pheese, plated, thaisa, thanan, thanna
30 anorak, anotia, antler, biskra, bugger, coling, czaric, duette, ginete, ginger, himmel, hogger, hoggin, iatric, karait, kenelm, kentia, kneipe, kraken, melano, melita, onager, raking, schelm, schete, teeing
31 cyclar, fetcht, fether, fudges, hinges, inhold, kasher, larigo, ogived, panics, panisc, pannel, ridges, seggio, skaffs
32 chumar, citole, disarm, dishes, distic, dollar, domini, enmesh, gudget, itches, killas, mensal, ramier, saliva, salvia, sheeve, sheuch, ticals, viatic
33 donsie, flocks, floran, hipple, jerome, jingko, peleth, plenar, randon, sample, seimas, smacks, talmas, talond, taluka, theber,
thecks, thenar, thenne, tidies, zaffir
34 bygone, civite, copula, duiker, gazite, kerite, kinone, kohemp, laughs, milker, pochay, pochok, dangir, snaker, tamkin, tamora
35 borrel, brotan, buller, dopant, holiya, holler, hollin, holpen, lavant, liniya, mimosa, natant, parfit, pariya, parpen, parrel, partan, pneuma, podler, rapeye, rappen, relift, reluck, tangis
36 bosket, bummer, cromer, croope, hitchy, homish, hommer, ketchy, merles, merope, minish, moholi, nimmer, nimshi, oilish, orchis, passel, rocket, sapota, selloi, shiels, sleaps, sleekt, sleugh, spales, umbels, umbles, wheels, wheugh, widish
37 bottle, bungey, cizars, droner, enrapt, honord, liplet, mespil, nincum, patlet, pattel, pillet, rennin, rodlet, taplet, telesm, thimes, unbelt, vanner, wiener
38 cotoin, cotyla, impawn, kirsen, meteor, octavo, rasens, rasion, sarion, sarwan, unclay, unclue, uncoin, uncore, wanion
39 assart, assent, assume, couper, couril, fluent, fornax, forril, froggy, fulyie, hopper, kislev, netful, nipper, perfix, perten, pinnet, prefix, quacky, quaggy, quarta, ratten, repart, repass, repent, repose, sastra, tarten, tenent, tenpin, traiks, travel, trawld, undose, wigful doughy, fossil, groats, gropes, oxalis, pseudo, satify, satura, scrats, slings, slipes, softas, speats, stangs, stapes, taskit, uglify, upcast, whilom, whings
41 burrer, duplex, horkey, momism, onlook, pethor, puddly, rinkey, usarin, ventil
42 busser, curers, curser, dowers, dowser, gunung, looser, miters, overaw, payers, resins, respue, savers, savior, sermon, shoers, shores, submit, tautog, timely, timers, warely
43 butter, cusses, druess, duress, hotter, hunter, mooter, nitter, polvil, prills, prises, prisse, pshaws, queint, quells, ripsaw, sawfly, sculls, scurfs, swarfs, tholls, thorax, tinter, vatter, waster, xarque, xenium
estray, orkney, pomary, spiney, spinks, spites, sudary, tawney, twanks, unites
revues, rollix
morris, solute
47 lothur, lotuko, oxhorn, sweirt, swelps, teviss, trivet
48 numery, reyson, skryer, snorks, stions, stirks, tewits, unmist, unmoor
49 buzzer, hutton, mousey, mouton, mouzer, osophy, phyton, plumpt, prompt, pronto, proton, pulton, seyton, thumpt
swiftly
opulus, rumors, slushy thymus, tor sos, tropyl stowls, tumour, utmost sourly
$\qquad$ outrow, pussly, tously
strows

With a few exceptions ( such as DOPANT), all words have been taken from Webster's Unabridged Dictionary, Second Edition.

For the sake of completeness, we also list six-letter palindromes and regular tautonyms, both of which are numerical tautonyms.
hallah, hannah, kassak, redder, renner, retter, sirris, succus, terret, tirrit
ack-ack, akeake, atlat1, barbar, beebee, benben, berber, bonbon, bribri, bulbul, bye-bye, cancan, chocho, cuscus, dik-dik, dugdug, dumdum, enaena, furfur, gabgab, galgal, gangan, gee-gee, grigri, grugru, gulgul, hawhaw, humhum, iwaiwa, kakkak, kiekie, lablab, marmar, miamia, motmot, mulmul, murmur, nagnag, palpal, pawpaw, pitpit, samsam, sarsar, seesee, semsem, simsim, soosoo, sousou, tartar, teetee, testes, tictic, toatoa, toetoe, toitoi, tom-tom, tortor, tumtum, turtur, tzetze, valval, wagwag, waiwai, weiwei, wou-wou, wow-wow, zemzem, zoozoo, cha-cha, kuskus, maomao, tsetse, dig-dig

