Only an infinitesimal part of all integers have English-language names. N3 allows us to name, gaplessly, all the integers up to $10^{63}$ (one vigintillion), and, by using standard terminology, up to $10^{66} - 1$ (nine hundred ninety-nine vigintillion, nine hundred ... thousand, nine hundred ninety-nine). There follows a huge unnamed gap up to $10^{303}$ (one centillion). If all the integers up to $10^{66} - 1$ were written out, they could, in theory, be alphabetized. Let us decide to eliminate the 'and's from alphabetization, and further stipulate that the higher powers of ten must be preceded by low-number modifiers -- for example, 'one thousand' rather than 'thousand'.

Here are some tentative solutions to logological questions that arise. I found that I changed the answers so frequently that I strongly suspect there may be still better answers.

**ALPHABETICALLY FIRST**

1. Cardinal Number: eight
2. Ordinal Number: eight billion eighteen million eighteen hundred fifty-one
3. Fraction Less Than One: eight-billion-eight-billion-eleven million-eleven thousand-eight-hundred-eighty-firsts (in lowest terms)
4. Fraction Greater Than One: eight-billion-eleven million-eleven thousand-eight-hundred-eighty-firsts (in lowest terms)
5. Mixed Number: eight (and) eight-billion-eight-billion-eighteen thousand-eight-hundred-eighty-firsts (in lowest terms)
6. Prime Number: eight billion eighteen million eighteen thousand eight hundred fifty-one
7. Square Number: eight billion eighteen million eight hundred forty-four thousand three hundred four (the square of 89,548)
8. Cubic Number: eight (the cube of 2)

**ALPHABETICALLY LAST**

1. Cardinal Number: two vigintillion two undecillion two trillion two thousand two hundred two
2. Ordinal Number: two vigintillion two undecillion two trillion two thousand two hundred twenty-third
5. Mixed Number: combine entries for 1 and 4

It is computationally impossible to determine the alphabetically last prime, square and cube, as all three will very likely begin with two vigintillion.

I am indebted to Keith H. Chiappa for devising and running a computer program for finding the alphabetically first prime.

HOW TO TELL AN -ABLE FROM AN -IBLE

In Issue 33 of The Editorial Eye (20 issues per year, available for $45 from 5905 Pratt Street, Alexandria VA 22310), editor Peggy Smith proposes three rules for distinguishing adjectives ending in -ible from those ending in -able:

1) use -able if the corresponding noun ends in -ation
2) use -ible if the suffix comes after soft G or soft C, and -able if the suffix comes after soft GE or soft CE
3) use -ible if the suffix comes after S and the corresponding noun ends in -sion

Although accurate, these rules apply to only a minority of -able -ible words. Of 401 -able adjectives and 88 -ible adjectives in the Merriam-Webster Pocket Dictionary of 7 through 15 letters, only 117 are covered by Rule 1, 37 by Rule 2, and 19 by Rule 3. (I have interpreted Rule 1 liberally, allowing -ate endings as well, and allowing -ation endings of related words like accreditation for creditable.)

If -able and -ible adjectives from the Pocket Dictionary are classified by the two immediately preceding letters, the following rule suggests itself: use -ible if the suffix is preceded by soft C, soft G, S, ST or PT, and -able otherwise. Alas, there are many Pocket Dictionary exceptions to this rule:


No matter what rule is devised, two pairs of words in the Pocket Dictionary are inseparable: impassable/impassible, and collectible/collectable. Many more of these twins can be found in NI2 and NI3.