

The "Jotto" Problem

The solution of difficult word problems seldom comes directly, or all at once. Usually, there is a gradual evolution toward the desired goal. Let us illustrate the process with what has come to be known as the "Jotto" problem.

JOTTO is a word game played by two persons, with paper and pencil. Each player mentally selects a five-letter word corresponding to the rules and limitations laid down for words used in the game of Scrabble, and then tries to figure out the word chosen by his or her opponent. Each turn in the game consists of a player announcing a five-letter word to his or her opponent, with the opponent giving in reply the number of letters the announced word has in common with the word mentally selected by the opponent. Play continues until one player correctly guesses the other player's word, thereby winning the game.

One good strategy in JOTTO is to announce to one's opponent, in successive turns, a series of words that have no letters in common, thus helping to isolate groups of letters including the letters of which the opponent's chosen word consists. Clearly, the most efficient way of doing this would be to announce a series of five words spelled with 25 of the 26 letters in the alphabet. The problem is to find such a series of five words.

When JOTTO players first started their quest for a group of five words embracing all but one letter of our alphabet, finding a satisfactory solution seemed all but hopeless. Initially, what turned up without much effort were groups of five words using 23 of the 26 letters, plus two duplications. For example, the group VIXEN-WALTZ-NYMPH-FUDGE-JOCKS used 23 letters, as did the group FIGHT-JUNKY-BEARD-VOWEL-CAMPS.

With a substantial amount of research, JOTTO players managed to ascend to the 24-letter level, with groups like BUXOM-CAWKS-FJELD-GRAPH-QVINT and CURVE-FJORD-GLYPH-TWANK-ZIMBS. You will note that a few rather unusual words had crept into the groups. Thus, a TWANK is a harsh, ringing sound; ZIMBS are large, Ethiopian flies; a FJELD is a barren, Scandinavian plateau; and a QVINT is a Danish weight equivalent to 77.16 grains.

To rise to the ultimate, 25-letter level proved too much for the JOTTO players, and they turned the problem over to logologists (word experts). Even the logologists ran into difficulties, and the first 25-letter word group that evolved from their labors was BUXOM-FJELD-GRAPH-QVINT-WYCKS. This group used every letter of the alphabet except Z, but was patently unacceptable, for the word WYCKS had been dug out of *The Oxford English Dictionary*, barred by all Scrabble and Jotto rules. The word means "creeks, inlets, or small bays," and its last recorded use was in the year 1846, as an entry in *A Glossary of North Country Words*, Third Edition, by John T. Brockett.

The logologists went back into their laboratories and continued to experiment. Eventually, one of them (Mr. Howard W. Bergerson, of Sweet Home, Oregon) produced the 25-letter group FUDGY-JAMBS-PHLOX-WRECK-QVINT. This group was handed over to the JOTTO players, who seemed content with it.

Not so the logologists, however. Only four of the five words involved *look* English—the word QVINT, with a Q followed by V instead of by U, *looks* foreign. Consequently, the problem has not yet been solved to the esthetic satisfaction of the logologists, and these dedicated souls are continuing their tireless efforts in the direction of a perfect solution to the "Jotto" problem.

Would you like to try beating them to the punch?

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NECKING AND PETTING

Those of you who enjoy necking and petting, but are ashamed to come right out and say so, will be relieved to know that there are a number of high-flown synonyms for the sport: CONTRECTATION, PAIZOGONY, PARAPHILEMIA, and SARMASSATION, among others.

By employing one of these terms, you can admit the truth without really enlightening your listener!

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THE POETS' CORNER

Of signal importance to the poet who plies his craft diligently is this question: what is the largest number of one-syllable words in English that rhyme perfectly?

We don't know whether a definitive study of this most pressing problem has ever been made, but can recommend the group of words rhyming with the letter A for the honor. At the moment, the members of the group personally known to us include: A, AY, AYE, BAY, BEY, BRAY, CAY, CHAY, CLAY, DAY, DEY, DRAY, DREY, EH, FAY, FEY, FLAY, FRAY, GAY, GRAY, GREY, HAY, HEY, JAY, KAY, LAY, LEY, MAY, NAY, NEY, PAY, PLAY, PRAY, PREY, RAY, SAY, SHAY, SLAY, SPAY, SPLAY, SPRAY, STAY, STRAY, SWAY, TAY, THEY, TRAY, VLEI, VLEY, WAY, and WHEY.

Of these 51 words and names, 48 happen to be in *The Random House Dictionary of the English Language* (1966). The remaining three are from Webster's unabridged: a DREY is a squirrel's nest, and a VLEI or VLEY is a temporary lake in South Africa. Have we overlooked any members of the group? Are there rival groups with larger memberships? Interesting questions!