

A Near Solution to Mercer's Pentomino Poser

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Leigh Mercer wrote, November 6, 1968: "A 6 by 10 rectangle can be built from the twelve pentominoes (the twelve ways five squares can be put together) in 2,339 different ways. I have drawings of these, and made a card-index of 2,339 cards from the drawings, discovering some interesting things no one else knew. They wouldn't do for WORD WAYS, I fear . . ."

But, happily, Mr. Mercer sent one of his discoveries in his next letter: a pair of pentomino rectangles; the pieces change from one to the other without rotating. The question is: can six 10-letter words be placed in one of the rectangles, such that the rearrangement of the pentominoes to the other rectangle will yield six other 10-letter words; or, failing this, can ten 6-letter words be made to rearrange to ten other 6-letter words? This question was put to Dr. Eckler, who replied January 27, 1969:

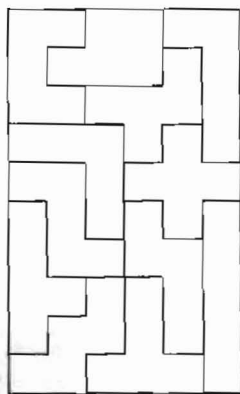
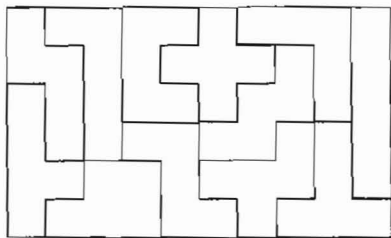
"The pentomino problem is quite interesting, and I have spent a fair amount of time trying to solve it. It is undoubtedly easier to look for six-letter words than for ten-letter words; even so, the problem is extremely difficult. I enclose my closest approach to a solution—17 out of 20 words. I suspect that any complete solution will involve rare words and/or proper names."

Below is Dr. Eckler's near-solution of a formidable problem to which a complete solution would certainly be most interesting.

P	O	R	T	E	R
A	T	T	E	S	T
E	L	D	E	S	T
A	V	E	R	S	E
S	L	I	C	E	S
	R	L	A	D	A
D	U	C	T	E	D
B	E	L	I	E	R
D	R	A	N		R
P	U	D	D	L	E

T	E	R	R	O	R
E	L	I	C	I	T
E	R	R	A	N	D
B	E	A	D	L	E
D	E	D	U	C	T
P	U	R	P	L	E
S	T	R	A	T	A
S	T	E	E	L	S
S	E	S		V	
A	D	D	L	E	D

But Leigh Mercer did not let things rest here. He sent another pair of rectangles which he had found, and again the pentominoes do not rotate when moved from one to the other—only, this time, one of the rectangles lies on its side. The problem in this case is to take one (or the other) rectangle as the upright one, and find ten 6-letter words for it which will become six 10-letter words when the pentominoes are moved to the other rectangle. (Mr. Mercer points out that the second pair is strangely similar to the first. One need only move five pentominoes in the right-hand rectangle above to form the right-hand rectangle below.) Herein we have a worthy challenge to our Logological Lions!



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BABIES TOES (Starting with little toe)

Doris Klindt Gundersen

Little Peed,
Peedalloo,
Looda Whistle,
Whistle Nozzle,
Great big Hobby Gobble.

(From Wisconsin where it was used at least five generations ago; probably was originally Dutch.)

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Leigh Mercer writes, October 16, 1968: "A great sentence for anagrams is "The Angel's Salutation," Luke, Chapter 1, verse 28: "Ave Maria, gratia Plena, Dominus tecum." With U and V interchangeable, 3,100 anagrams have been composed by one man alone, Lucan de Vriese, Others have composed 1,000 on this sentence."