

I U P U I
MATH CLUB TEASER #9

January 23, 2009
(due January 30, 2009)

SOLUTION

How many bridges are there supposed to be? Each bridge has two ends, so we can figure the total of bridges by counting their ends and dividing by two.

The mainland (5 bridges)	5	5
Four islands (4 bridges each)	4×4	16
Three islands (3 bridges each)	3×3	9
Two islands (2 bridges each)	2×2	4
One island (1 bridge)	1	1
Total number of bridge ends		35

Since 35 is an odd number, Felix deduced that the configuration of bridges as he read it is impossible.

SOLVED BY:

The Dream Team, The Residues.