

An alliance consists of seven (7) nations. Each nation in the group speaks at most two (2) languages. Among any three (3) of the nations there are at least two (2) who speak the same language. Show that there are three (3) nations who speak a common language.

**SUBMIT** your solution to

- Dr. Erol Akbas @ [matexa@langate.gsu.edu](mailto:matexa@langate.gsu.edu) or
- Dr. Yuanhui Xiao @ [matyxx@langate.gsu.edu](mailto:matyxx@langate.gsu.edu)

before the **deadline: Thursday, September 30, 2010, 5:00PM.**

You may get a copy of this problem from **the wall behind you.**

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