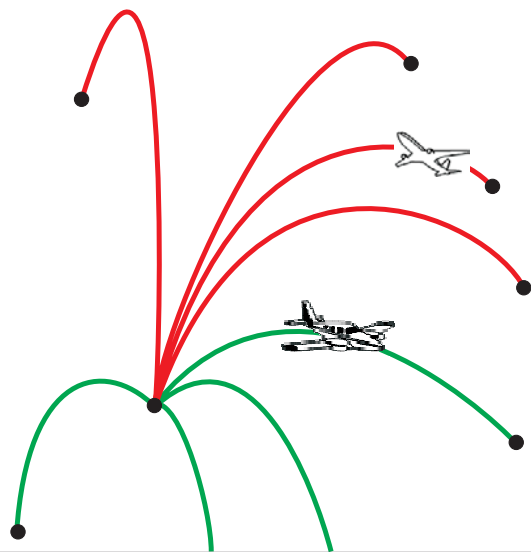


Problem of the Week

Proposed by Bernardo Ábrego and Silvia Fernández

October 16-23



There are exactly 12 cities in One-Way Country. For every pair of cities there is either a one-way direct flight in one of the two possible directions or no flight at all. Also, every one of the 12 cities has exactly four incoming flights and four outgoing flights.

Prove that it is possible to travel from any city to any other city by a flight requiring no more than two stops.

This contest is sponsored by the Mathematics Department. Open to all CSUN students.

Winner gets \$5 or an equivalent prize. All complete and correct solutions get a certificate.

Type and send your solution before October 23rd, 9:00PM to silvia.fernandez@csun.edu.

All steps of the solution must be clearly justified.

For rules, winners, solutions, and more information visit: www.csun.edu/math/probweek