

Mathematics Problem of the Week (238)

This week's winner is:

Maggie (Ming Kit) Lam

Contact Lin Hammill (Surrey Fir 348) or Judy Bicep (Richmond,3335) for your prize or email MathProblem@kpu.ca.

Also submitting correct solutions to problem 238 were:

Victor Blanchard, Peter Stevens, and Suzanne Pearce

Problem 238 solution:

Since one of Ethan's statements must be true, the thief is either Diane or Alek.

Check the other statements for a contradiction:

Statement	if Alek is the thief	if Diane is the thief
Alek 1	F	F
Alek 2	T	T
Barbara 1	T	T
Barbara 2	T	F
Cameron 1	F	F
Cameron 2	T	T
Diane 1	F	F
Diane 2	F	T
Ethan 1	F	T
Ethan 2	T	F

We see that the thief must be Diane, as the assumption that Alek was the thief does not satisfy the criteria that each person made one true and one false statement.