

Mathematics Problem of the Week

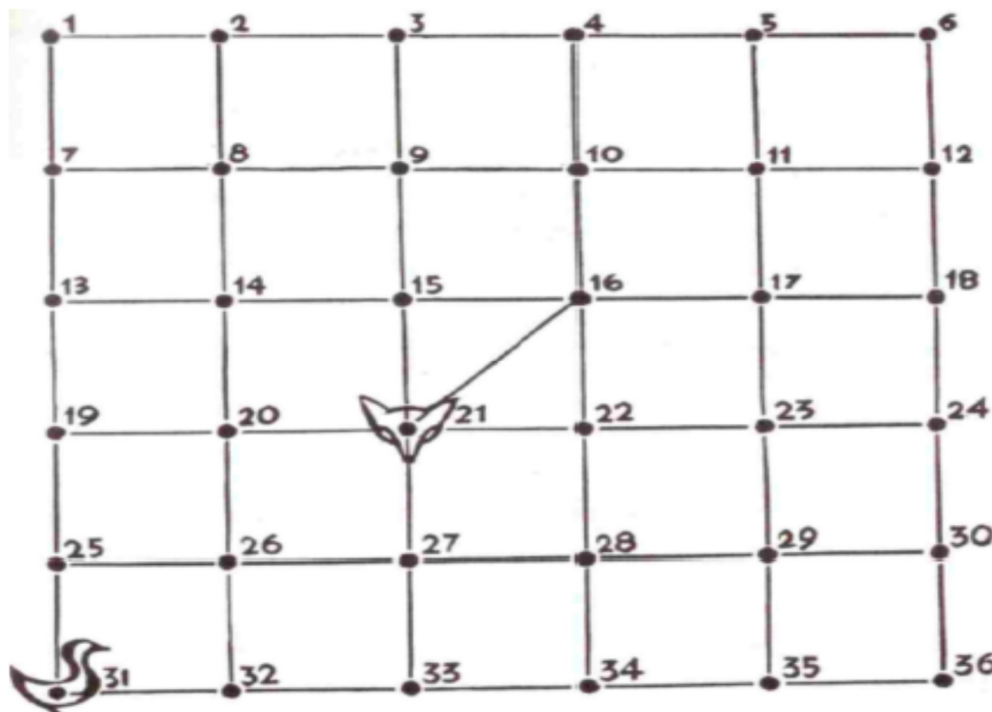
Problem number 271

Posted Monday November 30, 2015

Submit by noon, Monday December 7, 2015



Fantastic Mr. Fox and the Goose



*Boggis, Bunce, and Bean one fat, one short, one lean.
Those horrible crooks so different in looks are nonetheless equally mean.*

Mr. Fox has been able to feed his family by stealing fowl from the farmhouses of Boggis, Bunce and Bean. He thinks of game schemas and plots to outwit the farmers. The scheming game shown above involves capturing a goose. It must be played on the board and each animal gets to make a move alternately. A move consists of traversing through adjacent dots along a solid black line. Mr. Fox wants to capture the goose by moving onto the spot occupied by the goose. The goose tries to prevent this. If Mr. Fox is able to capture the goose in ten moves, then his family gets to eat a succulent goose. If not then the cackling of the goose is able to wake up the farmers and Mr. Fox will get caught.

Determine if Mr. Fox will be successful in capturing the goose. Present your solution in a tabular form indicating the alternate moves of Mr. Fox and the goose.

Submit your solution by

- § emailing it to MathProblem@kpu.ca
- § putting it in the MPOW box in the Math Assistance Centre on the Surrey campus (library, main floor)
- § putting it in the MPOW box in The Learning Centre on the Richmond campus (located in the library)
- § giving it to Tariq Nuruddin (Surrey A3670)

Be sure to include your name. In order to be eligible for the prize, KPU students should also include their student numbers. Winners names will be posted on the Problem of the Week web page. You can have the Problem of the Week emailed to you each week. Just go to the website and sign up.

Web site: <http://www.kpu.ca/mathematics-problem-week> .