Problem of the Week

## Number One

January 14, 2013

Welcome to the triumphant return of Problem of the Week! This semester's theme is:

## **RIDDLES AND BRAINTEASERS**

As we go along, certain purists might feel that some of my selections strain the meaning of the term "math problem." If you are among them, then I invite you to take a few deep breaths, formulate your objections clearly, and then ... tell 'em to the hand. All problems, and eventually solutions, will be posted at:

## http://educ.jmu.edu/~rosenhjd/POTW/Spring13/spring13.html

We start with a warm-up exercise. A mere bagatelle, really. Shouldn't detain you for long ... if you look at it the right way!

Two dogs were standing in a field facing in opposite directions. One was facing due north and the other was facing due south. It turns out, though, that the dogs were able to see each other without employing any mirrors or reflecting surfaces. How is this possible?

FOLLOW THESE INSTRUCTIONS TO THE LETTER: Place your full name and e-mail address in the top, right-hand corner of the page. If you are receiving course credit for this, please also indicate the professor and the course number. Write your answer on the back of the page. If there is any element of reasoning or calculation involved, then please also include a clear, brief explanation for your answer. Be sure to write neatly! If I can't read your writing easily, then your paper will be discarded.

Solutions are due to Jason Rosenhouse by 5:00 on Friday, January 18. Papers may be handed to him directly, placed in the inbox outside his office, or left in his mailbox in the main office. One weekly winner will receive a five-dollar gift card from Starbucks. Winners will be drawn randomly from among the correct answers.