
Problem of the Week

Number Three

January 28, 2013

This week we have a classic logic problem for you to consider.

Which of the following statements is/are true?

- 1. Exactly one of these statements is false.**
- 2. Exactly two of these statements are false.**
- 3. Exactly three of these statements are false.**
- 4. Exactly four of these statements are false.**
- 5. Exactly five of these statements are false.**
- 6. Exactly six of these statements are false.**
- 7. Exactly seven of these statements are false.**
- 8. Exactly eight of these statements are false.**

For some reason this all reminds me of the story of Descartes on an airplane. The flight attendant asked him if he wanted an alcoholic beverage. Descartes, a famous teetotaler, was horrified. He replied, "I think not!" and poof, he disappeared.

FOLLOW THESE INSTRUCTIONS TO THE LETTER: Place your full name and e-mail address in the top, right-hand corner of the POTW handout. 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. In such cases, an answer without an explanation will be discarded. 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, February 1. 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.