

Problem of the Week #15

Assigned: 1300, January 20, 2011

Due: 1300, January 27, 2011

The Dispute

Eight USMA math instructors get into an argument about which of them is the most skilled mathematician. "I know how we can resolve this dispute," MAJ Evans exclaims, "let us compete in a rigorous math skills examination administered by COL Horton." The other seven instructors (Dr. Russell, MAJ Thirey, Dr. Wooster, MAJ Arney, LTC Hays, MAJ Thibeault, and MAJ Vanatta) all agree and approach COL Horton.

COL Horton reluctantly agrees to administer such an exam and gives each instructor 10 tough math problems to solve. Each problem is scored as either right, worth 1 point, or wrong, worth no points. Instructors will then be rank ordered based on their scores, with the highest scorer(s) receiving the honor of "most skilled" mathematician.

How many unique rank orderings of these eight instructors are possible?

Email solutions to Christopher.marks@usma.edu with subject line: POTW.

Solutions can be emailed in the form of: an email (plain text) no attachment, a word document, a mathematica file, an excel workbook, or a scanned adobe file of your work.

If none of these options work for you, you may drop a hardcopy off at my office TH239C, just annotate the time of submission.