Math Competition

Problem #1: March 13, 2015 to March 27, 2015

Find all positive integers \( x, y, \) and \( z \) satisfying the equation
\[
31x + 30y + 29z = 366.
\]

Justify your answer: Prove that there are no other triplets \((x, y, z)\) different from yours.

Direct any questions to
Gregory Galperin, OM 3361

Rules & Rewards

- Any undergraduate currently enrolled at EIU is eligible to participate.

- Each solution is to be the work of one individual and is to be submitted with the solver’s name, year in school, email address, local address, and home address.

- Each solution is to be written or typed and is due in the main Mathematics Department office (OM 3611) by 2:00pm, Friday, March 27, 2015.

- Entries will be judged on the basis of clarity of exposition and elegance of the solution. That is to say, the explanation is more important than the answer.

- An award of $25 will be given for the best solution. In the case of a two-way tie, the award will be evenly split. If there are more than two ‘best’ solutions, a drawing will be held for the reward. In the case no award is made for this week’s challenge, $25 will be added to the next week’s award.

- Names of all solvers will be posted on the Challenge of the Week bulletin board and on the Challenge of the week homepage: http://www.eiu.edu/math/challenge.php