

# Cal Poly Department of Mathematics

## Puzzle of the Week

Feb 12-18, 2010

Here's another puzzle involving three-digit numbers: For every three-digit number  $n = ABC$  define

$$S(n) = A + B + C + (A \times B) + (A \times C) + (B \times C) + (A \times B \times C)$$

Find all (three-digit) numbers  $n$  with  $S(n) = n$ .

*Solutions should be submitted to Morgan Sherman:*

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*Email: sherman1 -AT- calpoly.edu*

*Office: bldg 25 room 310*

*before next Friday. Those with correct and complete solutions will have their names listed in next week's email announcement. Anybody is welcome to make a submission.*