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# Problem of the Week

## Number Five

October 6, 2014

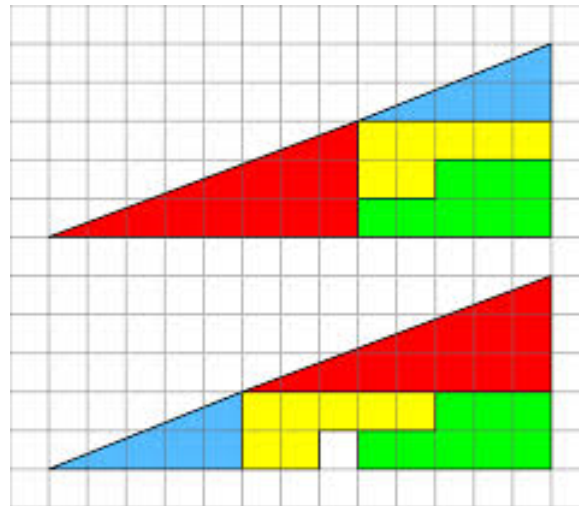
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Having taken last week off, we now return with a classic arithmetic puzzle:

**In the addition problem below, each letter stands for a different digit. However, each letter stands for the same digit in every place where it appears. Find the only possible value for each digit to make a correct addition statement:**

$$\begin{array}{r} S E N D \\ + M O R E \\ \hline M O N E Y \end{array}$$

Actually this particular puzzle, first published by Henry Dudeney in 1924, is such a classic that it represents a serious hole in your enigmatological education if you have not seen it before. In that spirit, I include another slam dunk classic you simply have to see as a bonus puzzle. Here it is:



That's pretty cool, wouldn't you say? Some area seems to have been lost in rearranging the pieces of the first triangle to obtain the second. What happened?

No need to hand in a solution to that one, though. Just figure out that arithmetic problem, and when you think you have it follow the directions on the other side of this page  $\implies$

*Solutions are due to Jason Rosenhouse by 5:00 on Friday, October 10. **Solutions should be written on an official POTW handout, on the back of this page.** Place your name, e-mail address, and the section numbers and professors of any math courses you are taking, in the **upper right corner** of the front of the page. One weekly winner will receive a five-dollar gift card from Starbucks. Please make sure that the answer to the problem is displayed clearly and prominently, in a box when appropriate. **Keep in mind, however, that to be considered correct, your answer to the problem must be accompanied by a clear, concise explanation.** Problems are available at the bulletin board outside Roop 119, and also at the website:*

<http://educ.jmu.edu/~rosenhjd/POTW/Fall14/homepage.html>