



# Problem of the Week

## Problem E

### Piecing It Together

A positive integer is written on the back of each of three puzzle pieces. The numbers are not necessarily different but the total of the three numbers is 14. Each puzzle piece is placed on a table so that the number cannot be seen. Alpha, Beta and Gamma each select one of the pieces, being careful not to let the other two see the number that is printed on the piece.

Alpha says, after looking at his puzzle piece, “I know that Beta and Gamma have different numbers.”

Beta then says, “I already knew that all three numbers were different.”

At this point, Gamma confidently exclaims, “I now know what all three of the numbers are!”

What were the numbers and who had which number?

