

## Problem of the Week-3: Alphabet Fractions

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Solve the equation

$$\frac{A}{BC} + \frac{D}{EF} + \frac{G}{HI} = 1$$

where  $\{A, B, C, \dots, I\} \in \{1, 2, 3, \dots, 9\}$  and each digit is used exactly once. Here  $BC, EF, HI$  are concatenations rather than multiplications. For example, if  $B = 4$  and  $C = 7$ , then  $BC$  would be the number 47, not the product  $4 \cdot 7 = 28$ .

As always, explain and justify your answer.

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Posting Date 2/10/11. Submit solutions to Noah Aydin, Mathematics Department, RBH 319 (e-mail or hard-copy, but hard copy submissions must include a time stamp) by 4 pm on 2/23/11.