

## Problem 6: Fractions Adding Up to 1

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For all integer pairs  $(x, y)$  that satisfy the equation

$$\frac{x}{y+7} + \frac{y}{x+7} = 1$$

As always, show your work, fully explain and justify your answer. A solution mainly obtained by computers or calculators will not be accepted.

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Posting Date 3/29/2019. Submit solutions to Noah Aydin, Mathematics Department, RBH 319 (e-mail or hard-copy, but hard copy submissions must include a time stamp) by 5 pm on 4/12/2019.