solve it!

little problems with big solutions

Sherry L. Bair

We encourage classroom teachers to pose this problem to your students and share their creative solutions. Please include a brief analysis of the specific strategy; examples of original student work or high-quality digital images; and your name, the school name and address, and your e-mail address. E-mail submissions to **Sherry L. Bair** at slbair@yahoo.com, or send to her at Texas A&M–Corpus Christi, Department of Mathematics and Statistics, Unit 5825, 6300 Ocean Drive, Corpus Christi, TX 78412-5825, by **December 15, 2013**. Published solutions will be credited.

(Solutions on page 253)

THINKSTOCK

Lemon Tea?

I have one large pitcher containing 1 quart of lemonade and a second large pitcher containing 1 quart of iced tea. I pour 1 pint of lemonade into the iced tea pitcher and thoroughly mix it, and then pour 1 pint of the mixture back into the lemonade pitcher.

1. Is there more iced tea in the lemonade or more lemonade in the iced tea? Justify your answer mathematically.

2. If the process is repeated a second time, how many ounces of lemonade will be in the original iced tea pitcher?

Extension: Is it possible to make both mixtures into 1/2 lemonade and 1/2 iced tea, using the same process repeatedly? Why or why not?