Liquid Measure: Teaspoons and Tablespoons

- Some students are confused because multiplying by a fraction gives an answer that is less thanthe original amount. It may help to think of multiplying numbers in the following ways:

  - Two times a number equals an answer that is twice as great as what you started with.

    $2 \times 4 = 8$, and 8 is twice as much as 4.
    $2 \times 1/2 = 1$, and 1 is twice as great as 1/2.

  - One times a number equals an answer that is the same as what you started with.

    $1 \times 4 = 4$, and 4 is the same as 4.
    $1 \times 1/2 = 1/2$, and 1/2 is the same as 1/2.

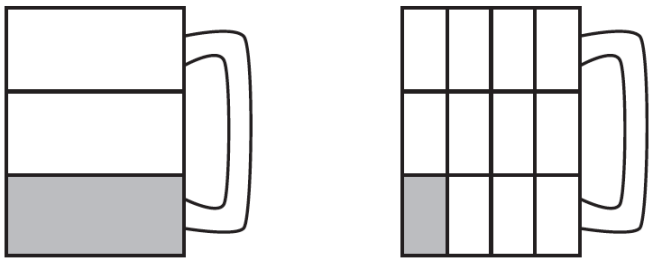
  - One times a number equals an answer that is the same as what you started with.

    $1/2 \times 4 = 2$, and 2 is less than 4.
    • *If 4 items are separated into 2 groups, each group will have 2 pieces.*

    $1/2 \times 1/2 = 1/4$, and 1/4 is less than 1/2.
    • *If 1/2 is cut in half, each part will be 1/4 of the whole.*

- Building problems with the overlays can help. It is also helpful to make drawings. The drawings don't have to be fancy—just make a sketch to show the process. Here are some examples using problems taken from your student book.

  - **Example 1**
    A recipe calls for 1/3 of a cup of melted butter. If Matthew is making 1/4 of the recipe, how much butter should he use?



  - First draw a cup that is 1/3 full of butter. Since he is making 1/4 of the recipe, draw vertical lines to divide the butter into four parts and choose one of the parts. Matthew needs to use 1/12 of a cup of melted butter.
    Check it by multiplying: $1/4 \times 1/3 = 1/12$.