**The Sharing Tips Tasks**

[Adapted from: “Expanding Students’ Conceptions of the Arithmetic Mean” (1995) by R.A. Meyer, C. Browning, & D. Channell]

Materials: Play money (e.g. from Monopoly): 30 dollar bills, 20 each of quarters, dimes, nickels, and pennies.

Suggested for groups of 3 or 4 students. The instructor may wish to change the problem with smaller amounts for younger children.

Procedures:

1. Estimate the typical value or average of the following problem.

Suppose four students received the following amounts in tips at the Cozy Corner Restaurant on a Monday night.

Maria $5.25
 Robert $4.75
 Joshua $6.50
 Sierra $6.10

Being good friends, they decided that the tips should be shared equally. How much should each friend receive? (Use the play money, and solve the problem without adding and dividing to find the amount each student receives.) Be prepared to share your thinking process with the class!

2. Another friend, Chris, was waiting on tables in a back room and was forgotten when the tips were shared. Chris received $6.10, the same amount that Sierra had originally received in tips earlier. If Chris’ tips are included and tips are shared equally among the five friends, will each of the other four students receive less, the same as, or more than they did before Chris’ tips were included? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Explain your reasoning.

 Then how much would each student receive if the five students shared the tips equally? Would you say that this amount represents a typical or average tip among this group?