Number Sense

In this activity, you will learn how to represent the quotient of a problem in different formats. Work the problem below on paper, and then use your TI-73 Explorer™ as a visual model to understand the relationship between the divisor, the remainder and a fraction.

Daniel and Monika counted 308 reservation cards for the Senior Center banquet. How many round tables will they need to set up if each table can seat eight guests?

Engage

1. Turn on your TI-73 Explorer and press the MODE key
2. Use the arrow keys to move the cursor over the words Normal, Float, Degree, A⌴b/c, and Autosimp. Press ENTER to highlight each of them
3. Press 2nd [QUIT] to return to the Home screen

Explore

1. Divide 308 ÷ 8 ENTER
2. To find the quotient and remainder to a problem, use 2nd [INT÷]
   Example: 308 2nd [INT÷] 8 ENTER
3. Work the problem again, pressing 308 ÷ 8 F↔D ENTER

Extend

1. For this problem, what answer format should Daniel and Monika use?
2. Describe the relationship between the divisor, remainder, and fraction
3. Identify a possible remainder if the quotient is 3 1/4, and then give a division problem that has the same quotient
4. Write a different division problem with a quotient of 3 1/4 (Example: 26 ÷ 8)
5. Check your work on questions 3 and 4 on the calculator, and see whether your conjecture is correct

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