

# Matrices in the Oven

The Woos' bakery provides another example for multiplying matrices. The problems in this assignment are similar to those in *Flying Matrices*.

Pay careful attention to the arithmetic involved in answering the questions.

For this assignment, you can ignore the constraints from the *More Cookies* problem, but the facts about the ingredients remain the same.

- One dozen of the plain cookies requires 1 pound of cookie dough (and no icing or chocolate chips).
  - One dozen of the iced cookies requires 0.7 pounds of cookie dough and 0.4 pounds of icing (and no chocolate chips).
  - One dozen of the chocolate chip cookies requires 0.9 pounds of cookie dough and 0.15 pounds of chocolate chips (and no icing).
1. Put all of this information into a matrix. Be sure to label your rows and columns.
  2. Suppose that on Wednesday, the Woos made 30 dozen plain cookies, 45 dozen iced cookies, and 30 dozen chocolate chip cookies; and on Thursday, they made 28 dozen plain cookies, 32 dozen iced cookies, and 25 dozen chocolate chip cookies.

Put all of this information into a matrix.

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3. Combine the information in your answers to Questions 1 and 2 to create a matrix that shows the total amount of *each ingredient* that was used on Wednesday and on Thursday.
4. Describe how you calculated the numbers for your matrix in Question 3.

