Making Connections in Multiplication

Use the *Multiplication Strategies Menu for Larger Numbers* to help you solve the following problems.

- 1. Michael did a research project about traffic. He counted 278 cars passing through a busy intersection during one hour. He estimated that less than 1500 cars would pass through during that same hour from Monday through Friday. Explain how Michael reached his estimate. What "friendly" numbers did he use and how did he get them?
- 2. Jerome solved the problem below using the compact method.

$$\begin{array}{r}
 24 \\
 348 \\
 \times 6 \\
 \hline
 2088
 \end{array}$$

- **A.** Why did Jerome place a 4 above the tens column? What does this 4 mean?
- B. How did Jerome get the 8 in the tens column of the answer?
- C. Jerome placed a 2 above which column? _____

Why?

What does this 2 mean?

D. How did Jerome get the 2 in the thousands column of the answer?

3. Lee Yah solved 259×3 using expanded form as shown below. Use Lee Yah's work to show how to solve the same problem using rectangles.

$$259 = 200 + 50 + 9 \times 3 \times 3$$

$$600 + 150 + 27 = 777$$

4. Show how to solve the problem below using a mental math strategy and a paper-and-pencil method.

Making Connections in Multiplication Expec-Check **Comments** Feedback Box tation In Use place value and mathematical properties E3 to multiply. [Q# 1–4] Show connections between models and E4 strategies for multiplication. [Q# 3–4] E6 Estimate products. [Q# 1–4] Multiply larger numbers using mental math E7 strategies and paper-and-pencil methods (e.g., expanded form, all-partials, compact). [Q# 1–4]