Multiple Multiplication Methods
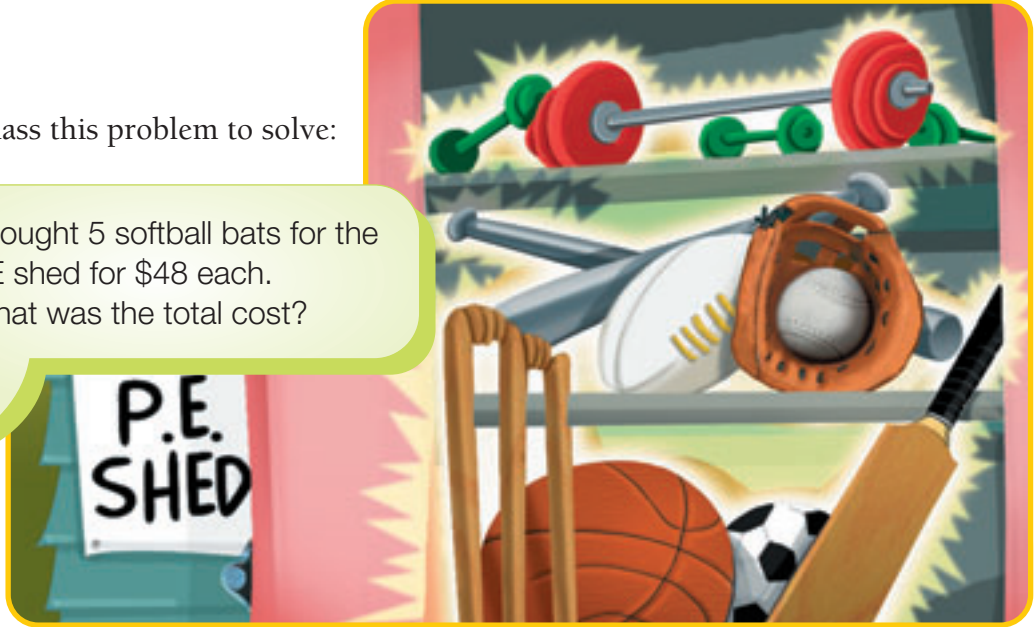
You need ☑ a classmate

Activity

Mr Mannering gave his class this problem to solve:

> I bought 5 softball bats for the PE shed for $48 each. What was the total cost?

P.E. SHED

1. **a.** Mr Mannering wrote down how Sophie, Larry, and Manua solved this problem in their group's recording book, but he forgot to label the solutions with each person's name. Match the person to their solution in the recording book.

i.
$$5 \times 48 = \square$$
$$\times 2 \qquad \div 2$$
$$10 \times 24 = 240$$
$$5 \times 48 = 240$$

ii.
$$5 \times 48 = (5 \times 50) - (5 \times 2)$$
$$= 250 - 10$$
$$= 240$$

iii.
$$5 \times 40 = 200$$
$$5 \times 8 = 40$$
$$200 + 40 = 240$$

Sophie

Larry — I used place value.

Manua

I used tidy numbers.

I used doubling and halving.

b. Which method do you think is best for this problem? Why?

Comparing different multiplicative part–whole strategies

2. Mr Mannering gives his class another problem to solve:

> I ordered 5 gym mats costing $98 each. What was the total cost?

a. Solve Mr Mannering's problem:

  i. Sophie's way   **ii.** Larry's way

  iii. Manua's way.

b. Which method do you think is best for this problem? Why?

3. Mr Mannering then gives his class these problems:

  i. $5 \times 26 = \square$ **ii.** $43 \times 7 = \square$

  iii. $6 \times 79 = \square$.

a. Look at each problem carefully without solving it. Discuss with a classmate whether it would be best to solve each one using tidy numbers (Sophie's method), place value (Larry's method), or doubling and halving (Manua's method).

b. Choose one of the problems you looked at in **a** and solve it using all three methods.
Were you right about which method was most efficient for this problem?

4. a. Write a problem that would be best solved using:

  i. tidy numbers   **ii.** place value

  iii. doubling and halving.

b. Give your problems to a classmate to solve. Discuss with them the method they used for each problem and whether it was the most efficient.

> Why do you think place value works best for solving this problem?