Multiplying Whole Numbers

Performance Task Objectives

- Multiply up to 5-digit numbers by 1-digit numbers
- Multiply two 2-digit numbers
- Find the areas of rectangles and squares
- Estimate products

Sunshine State Standards

- MA.A.3.2.2
- MA.A.3.2.3
- MA.A.4.2.1
- MA.B.1.2.2

Materials

- Student recording sheet
- Color tiles
- Paper and pencil

Student arrangement

- Individual or small group

Task

Present the problem on the student Recording Sheet to your students.

Performance Criteria

- Can the student explain how he or she estimated the number of tiles needed?
- Can the student correctly determine the area of the individual floors and the entire building?
- Can the student correctly determine the cost of the tiles for one kitchen floor and the entire building?
Solve this problem.

A 4-story apartment building has 15 apartments on each floor. The kitchen floors are being redone with new tile. The dimensions of the floor space to be tiled are 6 feet long by 4 feet wide. Ted, the tile man, has 1,500 one-foot square tiles.

ESTIMATION

Explain how you would estimate whether Ted has enough tiles to cover all the kitchen floors in the entire apartment building.

SOLVE THESE PROBLEMS

Answer the following questions by finding the exact answer.

1. How many tiles, each measuring 1 square foot, are needed to cover one kitchen floor? Show your work.

2. How many tiles are needed to cover all the kitchen floors in the entire 4-story apartment building? Show your work.

3. If tiles cost $0.82 each, how much will it cost to tile one kitchen floor? Show your work.

4. How much will it cost for the tiles for the whole building? Show your work.