

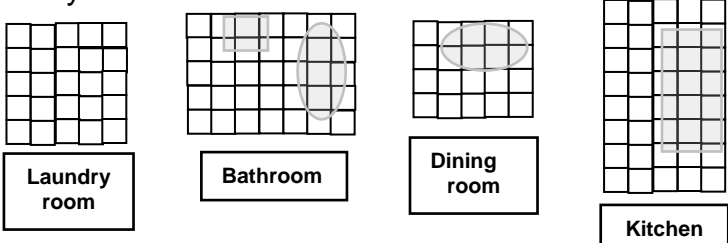
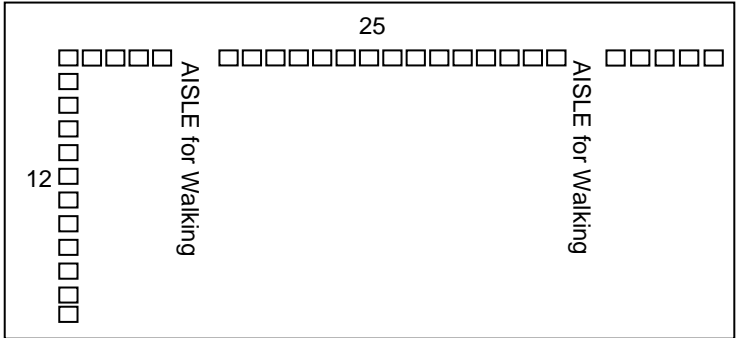


Multiplication Problems

The following problems provide suggestions for context ideas for student investigations. Numbers and contexts can and should be edited to suit your students' needs. The model and strategy references suggest possibilities only. Choose the particular models and/or strategies you want to emphasize in your instruction. While many strategies can be used to successfully solve problems, students need to move towards efficient ones.

Problem	Model	Strategy
I have a problem I hope you can help me with. I'm reorganizing our classroom and I was trying to figure out how many math books would fit on this bookshelf (pointing to a bookshelf with 6 shelves, the top shelf of which is filled with 14 math books). Mr Johnson would like to store some of his math books in our room as well because he doesn't have enough space in his own classroom, so I need to know the total number of books this bookshelf will hold to see if we have enough space. Can you help me find out how many books will fit on this bookshelf?	array	skip counting, repeated addition, distributive property
My nephew works in a shoe store and he was asked to take inventory of the shoes in the back of the store. Taking inventory means that he had to count all the boxes of shoes and record the total on paper. He soon got tired of counting each box and wanted to find a faster way. He came to shelves of running shoes. He counted along the top and found that there were 24 boxes of running shoes on one shelf. Then he counted the shelves and found that there were 9 shelves. The problem I have for you to solve is to find out how many boxes of running shoes there were in total.	array	skip counting, repeated addition, distributive property
I'm doing some renovations in my home and right now I'm working on the bathroom. I want to put some new tiles on the walls and the new tiles are the same size as the old ones. There are two walls with tiles in our bathroom. To save time I counted the number of rows and number of tiles in each row. On the first wall there were 8 rows of tiles and 13 tiles in each row. On the second wall there were 8 rows of tiles and 12 tiles in each row. How many tiles will I need to buy?	array, open array	skip counting, repeated addition, distributive property



Problem	Model	Strategy
<p>My uncle sells and installs floor tiles. He often starts his job by going to a home to figure out how many tiles he will need. He showed me some drawings he made of the different floors he saw last week. Can you figure out how many tiles he will need for each floor?</p>  <p>Laundry room Bathroom Dining room Kitchen</p>	array	distributive property, skip counting, repeated addition
<p>The principal has asked our class to help with our upcoming school assembly. She wants us to set up chairs in the gym. The school has some chairs but we need to order more so we can have as many seats available as possible. I went to the gym and I found out that we could put 25 chairs across the front of the gym with space for two aisles and that we could fit 12 rows of chairs from the front of the gym to the back. The principal needs to know how many chairs will fit in total.</p> 	array, open array	distributive property
<p>The school is planning on going on a skating trip and I'm in charge of booking the buses to get us to the arena and back. I have a problem that I hope you can help me with. I called the bus company and they told me that they have 15 buses available. Each bus will hold 42 people. I need to figure out how many people the buses will hold in total.</p>	open array	distributive property, partial product, and standard algorithm



Problem	Model	Strategy
My sister is in charge of fundraising at the office where she works. They are raising money to give to the food bank in her city. She is asking each person she works with to collect \$25. There are 317 people working in her office building. If each person collects \$25 how much money in total will have been collected for the food bank?	open array	distributive property, partial product, and standard algorithm

For more information on multiplication models and strategies and for additional multiplication problems, go to www.eworkshop.on.ca.