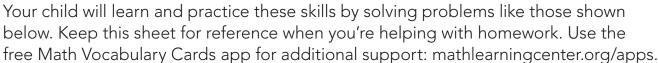
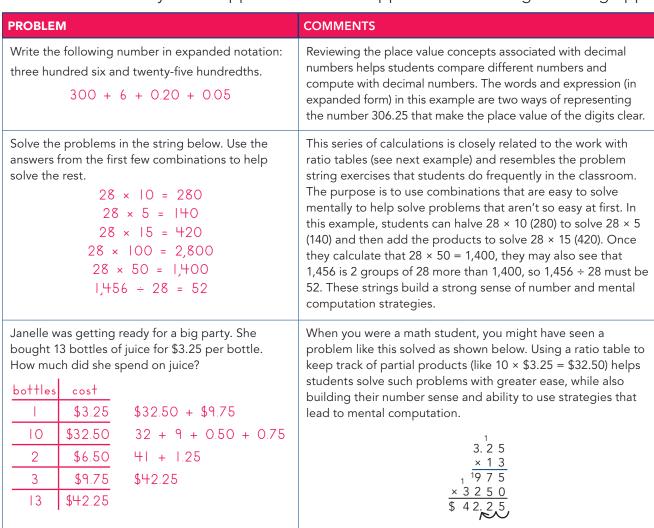
Bridges in Mathematics Grade 5 Unit 4

Multiplying & Dividing Whole Numbers & Decimals

In this unit your child will:

- Use a variety of strategies for multiplying and dividing multi-digit whole numbers
- Practice using the standard algorithm to multiply multi-digit whole numbers
- Begin multiplying and dividing with decimal numbers





PROBLEM	COMMENTS
Fill in the blanks to complete the problems. Use the standard algorithm to solve the problem. $ \begin{array}{cccccccccccccccccccccccccccccccccc$	Students are expected to be able to use the standard algorithm for multiplication, and toward the end of the unit you'll see homework problems that require it. Some are only partially completed using the algorithm, and then students are asked to finish the work. This prepares students for assessment items shown this way. Other prompts ask students to examine a fictional student's work and identify how and why that student made errors in their use of the algorithm. Those prompts are meant to help students think carefully about how the algorithm works and to help them avoid making common errors when they use the algorithm.
Julissa bought her mom some flowers. Each flower cost \$0.65, and Julissa spent \$11.70 in all. How many flowers did she get for her mom? 20-2 flowers	The ratio table can also be used to solve division problems. You might recall solving problems like this one by first converting the divisor (0.65) to a whole number, multiplying the dividend by the corresponding power of 10, and then carrying out the long division algorithm, using a process of informed trial and error to figure out the maximum number of times the divisor goes into each part of the dividend.

FREQUENTLY ASKED QUESTIONS ABOUT UNIT 4

Q: I don't remember how to use the multiplication algorithm. The examples in the homework don't really help me, because I can't see where to start or what order to do the steps.

A: The algorithm works every time when carried out correctly, but many people have difficulty remembering how to carry out the steps. Take a look online for videos that will take you through the algorithm step by step. Some are much clearer than others, so watch different videos if the first isn't helpful for you.

preserves the actual magnitude of the numbers in the problem.

Q: This approach to multiplication and division is new to me. Why have kids use so many different strategies when they can use the algorithms instead?

A: An algorithm is a set of steps used to perform a particular calculation with specific kinds of numbers. Algorithms are important because when they are used accurately and with understanding, they are reliable, efficient, and universally applicable. Difficulties arise when students attempt to use an algorithm for multiplying or dividing without having mastered the basic facts, when they don't understand why the algorithm works, when they forget the steps, or when they can carry out the steps yet are unable to use their estimation skills to judge whether their final answer is reasonable. This unit employs the array model and additional strategies to help students build a strong sense of number and an understanding of how different strategies, including the algorithms, work. The goal is to help students develop many effective computational strategies, a strong sense of number, and the ability to use algorithms with understanding and accuracy.