

Grade 5 Module 2

Tips for Families

Key Concepts Overview

Focus TEKS: **5.3A, 5.3B, 5.3C, 5.3D, 5.3E, 5.3F, 5.3G, 5.4A, 5.4B, 5.4E, 5.4F, 5.7A**

The focus of Module 2 is applying the patterns of the base-ten system to mental strategies and evaluating using the multiplication and division algorithms. Your student will:

- ☐ Identify factors that make up a number less than 100, and identify multiples, **prime numbers**, and **composite numbers**.
- ☐ Estimate multi-digit whole number and decimal products by rounding the factors to decide whether the product is reasonable.
- ☐ Multiply multi-digit whole numbers and decimal numbers using place value understanding, a visual model, and the standard algorithm.
- ☐ Divide whole numbers with up to four-digit dividends and two-digit divisors and interpret the remainders.
- ☐ Divide decimal numbers with up to four-digit dividends and two-digit divisors and reason about the placement of the decimal point.
- ☐ Use a strip diagram to represent a division word problem with an unknown group size or an unknown number of groups.

You can use the checklist above to help monitor your student's progress of the knowledge and skills in this module. Daily sample problems with solutions and thought bubbles are found in the Homework Helper pages of the Succeed Student Edition to help you support your student as they work at home.

Additional Ways to Help at Home

- Review rounding whole numbers with your student, such as the following examples:
What is 19 rounded to the nearest ten? (20)
What is 727 rounded to the nearest hundred? (700)
What is 3,815 rounded to the nearest thousand? (4,000)
- Help your student practice multiplication facts. Have him bounce a basketball as he says the multiples of different numbers. For example, he can practice saying the multiples of 8 with each bounce: 0, 8, 16, 24, 32, 40, 48, 56, 64, 72, 80. Then he can say them backward: 80, 72, 64, 56, 48, 40, 32, 24, 16, 8, 0.



- Play the “Divide the Card” number game with your student. Use playing cards, and take out the jacks, queens, kings, and jokers. Put the stack of remaining cards face down.
 1. Flip three or four cards from the top of the deck and place them face up on the table. The three- or four-digit number shown by these cards will represent the dividend.
 2. Your student flips two cards from the top of the deck and places them face up on the table. The two-digit number shown by these cards will represent the divisor.
 3. Write the division expression using the dividend and the divisor. Then ask your student to estimate the quotient.
 4. Your student then solves the division problem using the standard algorithm.

For example, you flip three cards with the numbers 3, 1, and 2; it represents 312. Your student flips two cards with the numbers 5 and 1; it represents 51. You write $312 \div 51$ and say, “Estimate how many times 51 can go into 312.” She says, “Six,” and then solves the division problem using the standard algorithm. (The answer is 6 with a remainder of 6.) If playing cards are not available, the game can also be played by writing the digits 1–9 on small pieces of paper or index cards.

Terms

Composite number (*Número compuesto*): a positive integer having three or more whole number factors

factor pairs for 28	
1	28
2	14
4	7

composite
more than 2 factors

Dividend (*Dividendo*): the number that is divided by another number

Divisor (*Divisor*): the number by which another number is divided

$$\begin{array}{ccc} 5.4 \div 10 \\ \uparrow \quad \uparrow \\ \text{dividend} \quad \text{divisor} \end{array}$$

Prime number (*Número primo*): a positive integer greater than 1 having whole number factors of only 1 and itself

Factor Pairs for 29	
1	29

Prime
only 2 factors
just 1 and itself (29)



Product (*Product*): the result of multiplying numbers together

$$527 \times 36 = 18,972$$

↑
product

Quotient (*Cociente*): the answer of dividing one quantity by another

$$1.8 \div 6 = 0.3$$

↑
quotient

Remainder: the number left over when one integer is divided by another

$$\begin{array}{r} 2 \\ 43 \overline{) 94} \\ \underline{-86} \\ 8 \end{array}$$

↑
remainder

Models

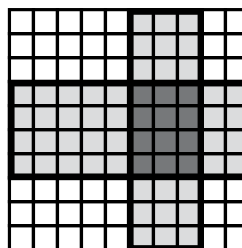
Area Model

$900 + 20 + 1$		
6	5,400	120
6	5,400	120
10	9,000	200
10	9,000	200

$$\begin{array}{r} 921 \\ \times 16 \\ \hline 5526 \\ + 9210 \\ \hline 14,736 \end{array}$$

$$921 \times 16 = 14,736$$

Hundredths Grid Area Model



$$0.6 \times 0.4 = 0.24$$

