

KEY CONCEPT OVERVIEW

In Lessons 12 through 15, students learn to solve multiplication and division problems with units of 9. They explore the unique patterns that occur in this set of facts to help with recall.

You can expect to see homework that asks your child to do the following:

- Use multiplying by 5 as a strategy to help solve larger problems.
- Find ten more and one less than a number.
- Find the value of the unknown (letter) in simple equations and in word problems.
- Look for patterns in the nines facts.

SAMPLE PROBLEM (From Lesson 14)

Sonya figures out the answer to 7×9 by putting down her right index finger. (See image.) What is the answer? Explain how to use Sonya's finger strategy.



Sonya is thinking that each finger matches a number from 1 to 10, with 1 on the left and 10 on the right. She puts down her seventh finger to match the 7 in 7×9 . Then she sees that there are 6 fingers to the left (tens place) and 3 fingers to the right (ones place). The answer is 63.

Additional sample problems with detailed answer steps are found in the *Eureka Math Homework Helpers* books. Learn more at GreatMinds.org.

HOW YOU CAN HELP AT HOME

- Continue to practice multiplication and division facts up to multiples of 9 from memory. Focus on the facts that your child has the most difficulty remembering.
- Read children’s picture books about multiplication and division with your child. Check for titles online or in your local library or bookstore. Here are some titles to get you started:
 - $7 \times 9 = TROUBLE!$, by Claudia Mills and C. Brian Karas
 - *365 Penguins*, by Jean-Luc Fromental and Joëlle Jolivet
 - *Multiplying Menace: The Revenge of Rumpelstiltskin*, by Pam Calvert and Wayne Geehan
 - *Now ... for My Next Number! Songs for Multiplying Fun*, by Margaret Park and Sophia Esterman. The book comes with a CD of songs to help children remember math facts.
 - *Breakfast at Danny’s Diner: A Book About Multiplication*, by Judith Stamper and Chris Demarest
- Play a memory match game with multiplication and division.
 1. Use note cards or construction paper to make a set of cards. On the cards, write the multiplication and division facts that your child struggles with the most.
 2. Make a second set of cards showing the answers that match the facts.
 3. Mix the two sets of cards together and arrange them all facedown in an array.
 4. Players take turns turning over two cards at a time to see whether the cards match a multiplication or division fact with its correct answer. If no match is made, the cards are turned facedown. If a match is made, the player keeps the two cards. Continue until all the cards in the array have been matched. The player with the most cards at the end of the game is the winner.

For example, if your child turns over one card that shows 8×7 and another showing 63, a match was not made. She must turn the cards facedown because $8 \times 7 = 56$, not 63. If, however, she turns over a 9 and $63 \div 7$, she keeps both cards because 9 is the correct answer for the division expression.