

Focus Questions: Chapter 2

1. In case 8, children work to answer questions that adults would consider as multiplication problems. Think about the representations offered by Jason, Rashad, Carlita, Kenya, and Flora. How does each illustrate multiplication? How are they the same and how are they different?
2. Also in case 8, consider the thinking of Junior in lines 73–85. What ideas about multiplication is he grappling with? What does his confusion illuminate about the nature of multiplication?
3. Consider case 9:
 - (a) Explain the difference between the thinking of Caroline and Roger at the beginning of the case. How are their ideas related to a property of multiplication?
 - (b) What is illuminated as Luke explains Roger’s thinking in response to the teacher’s question, “Why does Roger have to add on 3 more twos?” How are their ideas related to a property of multiplication?
 - (c) What ideas related to multiplication are evident in the student work samples?
 - (d) What new ideas or questions about developing concepts for multiplication does this case highlight for you?
4. In case 10, we see children working on a multiplication problem, making mistakes, and sorting out their misunderstandings. Where did these children get confused? How did they sort it out? How are the ideas in this fourth-grade class similar to Junior’s confusion in case 8’s kindergarten class?
5. Consider case 12. Explain the thinking of Su-Yin, Derrick, and William. What ideas about multiplication and division does the thinking of these children highlight?
6. Look over your work for questions 1–4. Locate one or two examples of student work that exemplify practice 2; then be specific as you explain how your examples illustrate the practice.
7. In case 11, we see students using addition, subtraction, and multiplication to solve problems that most of us would consider division problems.
 - (a) In particular, consider Vanessa’s work on the first two problems (lines 261–274). Vanessa subtracts to solve one problem and adds to solve the other. Why do you think she uses different operations for these two problems?
 - (b) Consider the work of Cory (lines 278–290) and Matthew (lines 299–306). What does each student’s approach indicate about his thinking about division?