

Lesson 20: Interpret Remainders in Division Situations

Standards Alignments

Building On 4.OA.B.4
 Addressing 4.NBT.B.6, 4.OA.A.3

Teacher-facing Learning Goals

- Interpret the result and remainder of division in situations.
- Represent and solve problems that involve finding whole-number quotients and remainders.

Student-facing Learning Goals

- Let's solve problems involving division and interpret remainders.

Lesson Purpose

The purpose of this lesson is for students to represent and solve contextual problems that involve dividing a whole number of up to four-digits by a single-digit divisor, resulting in a number with or without a remainder. Students also interpret the result and remainder given a situation.

By now students have developed various strategies to divide multi-digit numbers by single-digit divisors and have used different representations along the way. In this lesson, students apply what they learned to solve a variety of word problems that involve division (MP2).

This lesson has a Student Section Summary.

Access for:

Students with Disabilities

- Action and Expression (Activity 1)

English Learners

- MLR8 (Activity 2)

Instructional Routines

Choral Count (Warm-up)

Lesson Timeline

Warm-up	10 min
Activity 1	15 min

Teacher Reflection Question

What productive and unproductive beliefs did students show when they were solving problems today? How might you amplify the

Activity 2	20 min
Lesson Synthesis	10 min
Cool-down	5 min

productive beliefs and address the unproductive ones?

Cool-down (to be completed at the end of the lesson)

🕒 5 min

Miscounting?

Standards Alignments

Addressing 4.NBT.B.6, 4.OA.A.3

Student-facing Task Statement

Mai is reciting multiples of 6. The last number she calls out is 194. Clare says, “I think you may have made a mistake.”

Do you agree with Clare? Explain or show your reasoning.

Student Responses

Yes, I agree with Clare. Sample reasoning:

- 194 is not a multiple of 6. I know that $6 \times 30 = 180$, and 194 is 14 away from 180. Because 14 is not a multiple of 6, then 194 is also not a multiple of 6.
- Six is not a factor of 194. I divided 194 by 6 and got 32 with a remainder of 2. If Mai counted correctly, she would have called out 192 and then 198.