# Lesson 20: Interpret Remainders in Division Situations

### Standards Alignments

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| --- | --- |
| 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

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| --- | --- |
| Warm-up | 10 min |
| Activity 1 | 15 min |
| Activity 2 | 20 min |
| Lesson Synthesis | 10 min |
| Cool-down | 5 min |

### Teacher Reflection Question

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

## Cool-down

(to be completed at the end of the lesson) 5min

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 $6×30=180$, 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.