# Unit 6 Lesson 14: Situations Involving Factors and Multiples

## WU Number Talk: Dividing by 7 (Warm up)

### Student Task Statement

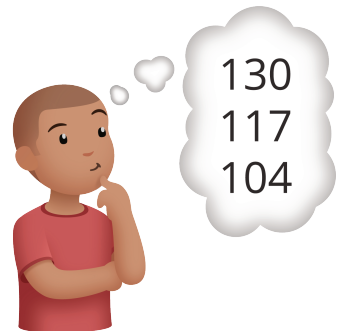Find the value of each expression mentally.

- $21 \div 7$
- $35 \div 7$
- $140 \div 7$
- $196 \div 7$

## 1 Write Multiples

### Student Task Statement

1. Han starts writing multiples of a number. When he reaches 104, he has written 8 numbers.

   For each of the following questions, show your reasoning.

   

   a. What number is Han writing multiples of?
   b. What is the 15th multiple of this number?
   c. Han gets to 286. How many numbers has he written at that point?

2. Kiran wants to know how many multiples of 7 are between 0 and 150.

   a. He thinks he can use division to find out. Do you agree? Explain your reasoning.
   b. How many multiples will he find? Show your reasoning.
   c. Is 150 a multiple of 7? Show how you know.

## 2 Jada's Mystery Number

### Student Task Statement

Jada is writing multiples of a mystery number. After writing a bunch of numbers, she writes out 126.

- Mai says 6 is the mystery number.
- Priya says 8 is the mystery number.
- Andre says 9 could be the mystery number.

1. Which student do you agree with? Show your reasoning and include equations.
2. Jada gives one more clue: "If I keep writing multiples, I'll get to 153."

   What is the mystery number? Explain or show your reasoning.