

Unit 5 Lesson 4: Introduction to Linear Relationships

1 Number Talk: Fraction Division (Warm up)

Student Task Statement

Find the value of $2\frac{5}{8} \div \frac{1}{2}$.

2 Stacking Cups

Images for Launch



Student Task Statement

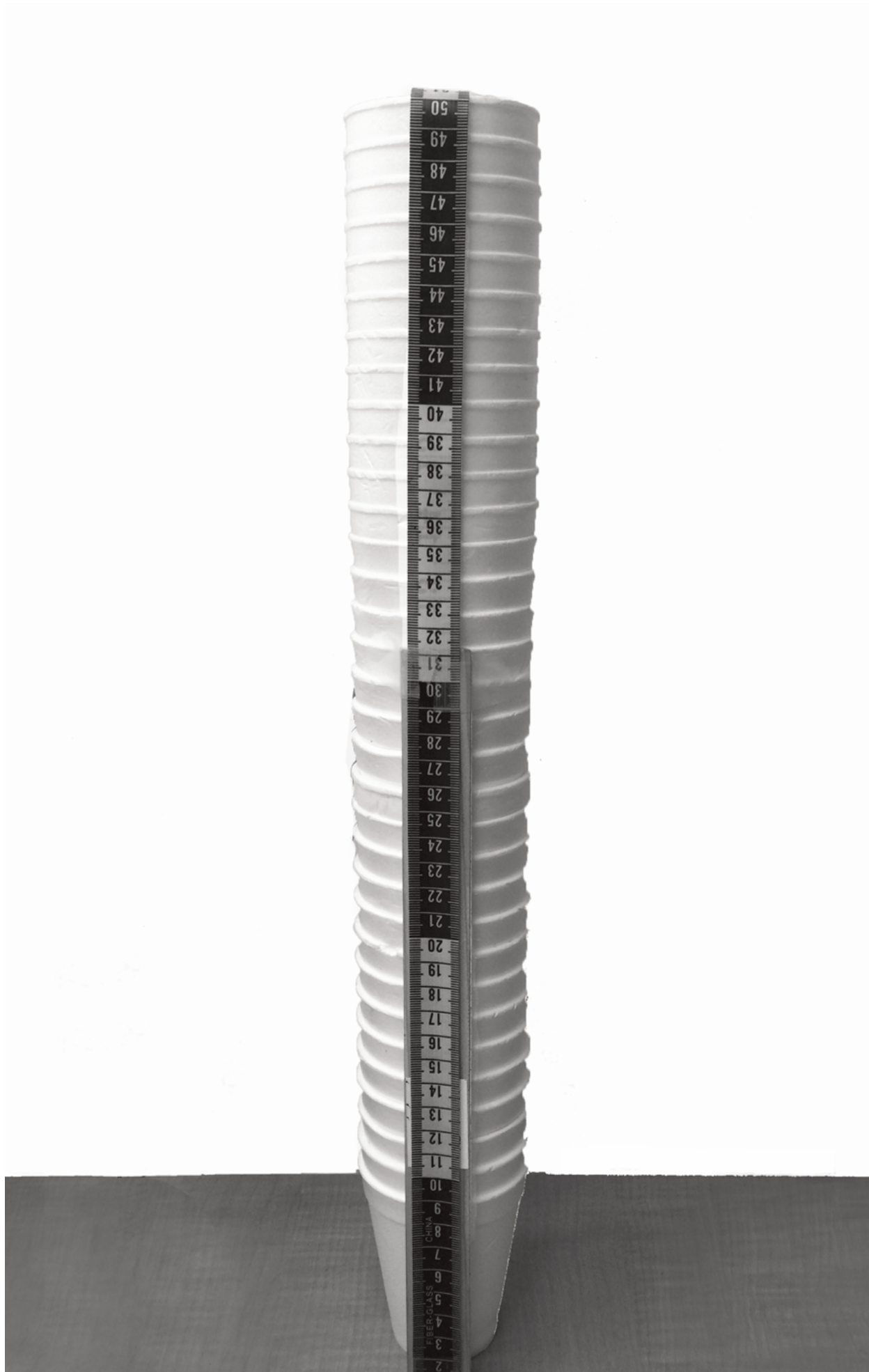
We have two stacks of styrofoam cups.

- One stack has 6 cups, and its height is 15 cm.
- The other stack has 12 cups, and its height is 23 cm.

How many cups are needed for a stack with a height of 50 cm?



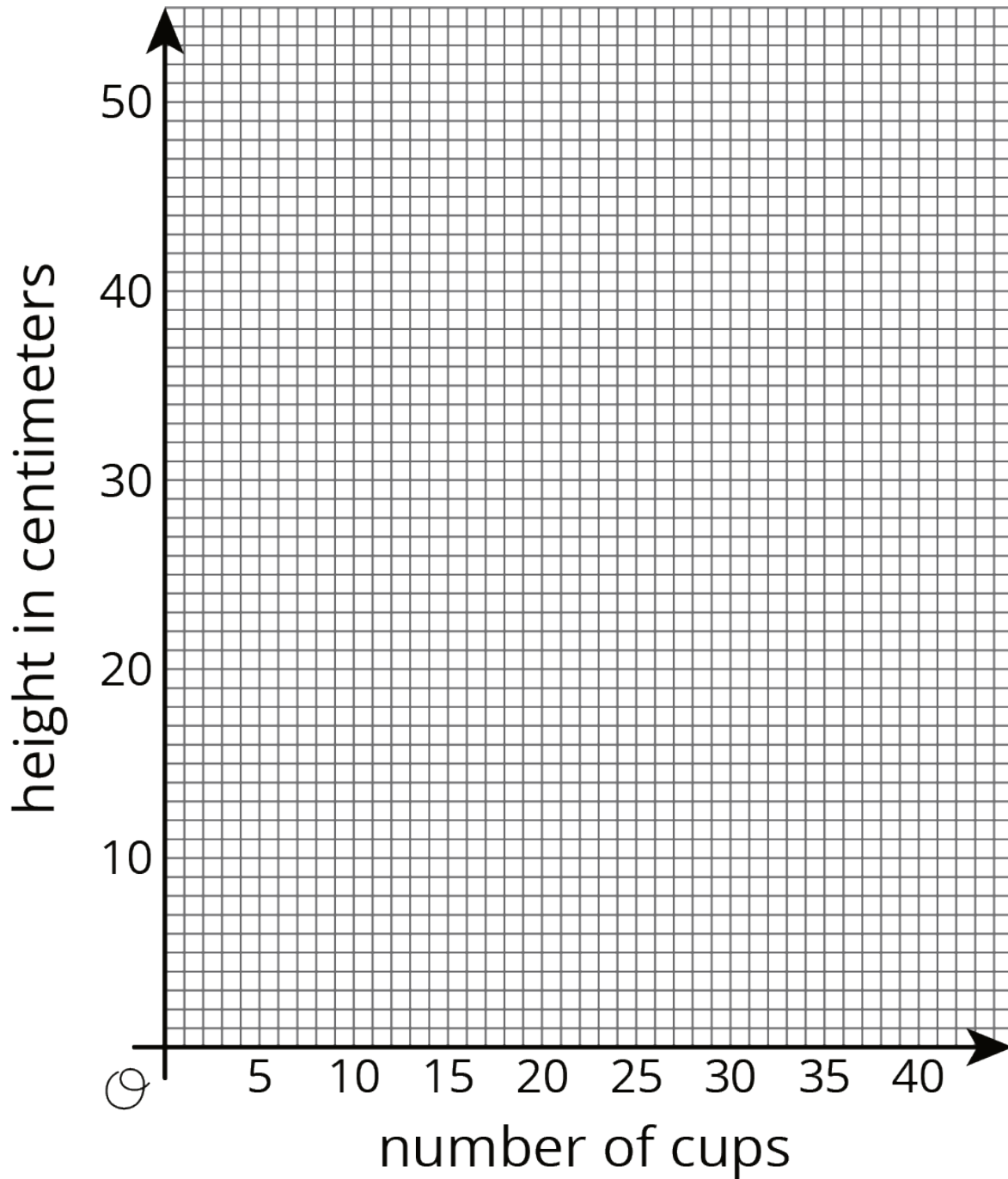
Activity Synthesis



3 Connecting Slope to Rate of Change

Student Task Statement

1. If you didn't create your own graph of the situation before, do so now.



2. What are some ways you can tell that the number of cups is not proportional to the height of the stack?

3. What is the **slope** of the line in your graph? What does the slope mean in this situation?
4. At what point does your line intersect the vertical axis? What do the coordinates of this point tell you about the cups?
5. How much height does each cup add after the first add to the stack?

Activity Synthesis

