

Lesson 5: Introduction to Linear Relationships

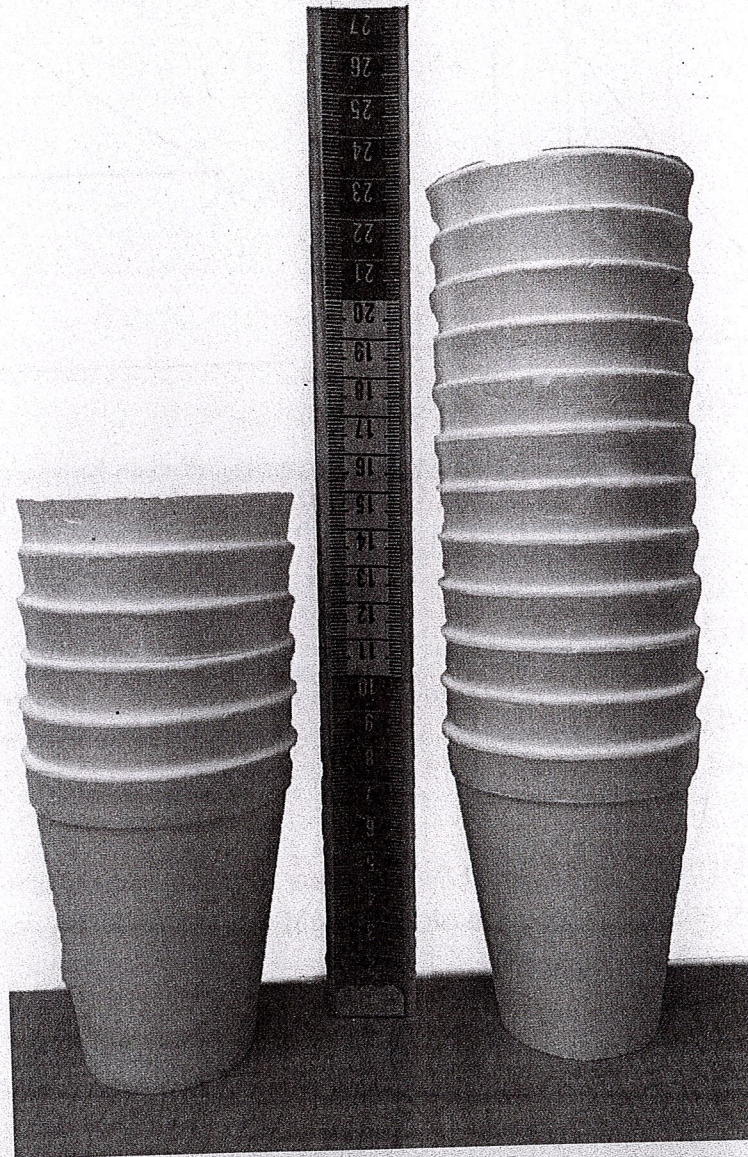
Let's explore some relationships between two variables.

5.1: Number Talk: Fraction Division

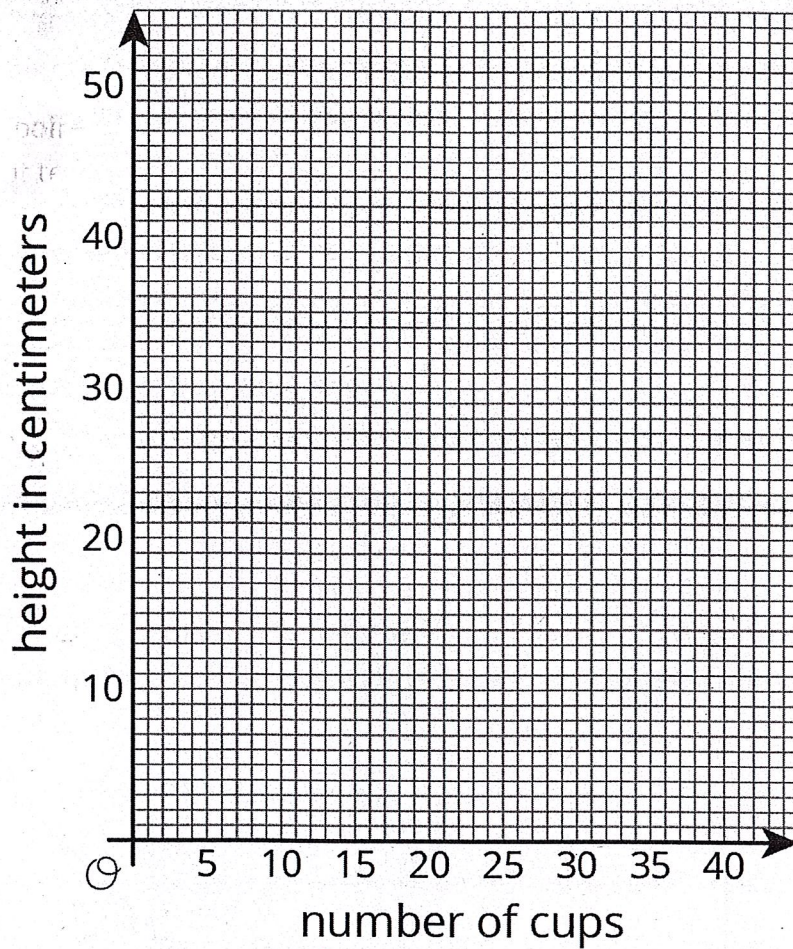
Find the value of $2\frac{5}{8} \div \frac{1}{2}$.

5.2: Stacking Cups

We have two stacks of styrofoam cups. One stack has 6 cups and its height is 15 cm. The other one has 12 cups and its height is 23 cm. How many cups are needed for a stack with a height of 50 cm?



5.3: Connecting Slope to Rate of Change



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?