Sock Percentages

Companion Text: I Lost My Sock, by Lin Jakary & Ryan Olson
Subject Area & Grade Level: Mathematics, 1st Grade
Materials: Calculators

Objectives

After this lesson, students will be able to:

- Describe the attributes of their personal set of socks
- Derive percentages based on sock type, with assistance

Activity

Read the story through once through without stopping. Then, ask students to try to remember the different types of socks that the boy mentioned he had, or that you could see that he had from the pictures. Try to prompt recall of: white sport socks, brown, striped, and blue socks. Ask what type most of his socks were (White, sport socks). Introduce the word "Percentage" as a way to talk about fractions/parts of a whole, and ask students to take a guess about the percentage of this boy's socks that were white, sport socks, and the percentage that were other colors. Also point out that different people often have different names for the same type of sock, depending on the activities they do or the shape and characteristics of the sock. For example, what I might call a "sport sock," someone else may call a "tube sock," or what one person calls a "dance sock," someone else might call a "running sock."

Assign the following activity for homework. Have students survey their entire personal collection of clean socks (and for girls, tights too). Describe the attributes to record, such as type of sock (i.e., dress sock, sport sock, holiday/novelty sock, "tights"), color, pattern, material (if they know), and any other attribute they can think of. They should return the next school day able to report the total number of paired and unpaired socks, and their attributes.

Reflection

Guide each student through deriving percentages of each type of sock in their collection, based on the numbers they bring back. Explain how to find the percentage of each type by dividing the number of socks of that type by the total number of socks in their collection. Have students use calculators, and show them how to translate the decimal they get as an answer to a percentage by moving the decimal over two places. The math involved in these calculations will likely be beyond most first-graders, but the concept is still useful to model. You might be able to split your class into groups with a strong math student in each one to lead others, or you may need to go through each student's numbers one at a time in front of the class. Students are exposed to percentages all the time in advertising, game scores/rankings, and general speech (half, third, etc.), so it is good tangible practice for them to make connections between parts and wholes with their sock collections.