Letwity 11.4 PENCIL TO PENCIL

Hold up a cutout of a very large pencil (e.g., 30 inches in length). Explain to students that this is the exact size of a pencil used by a giant.

Ask, "If this is her pencil, what else can you tell me about her?" For students (particularly those with disabilities) who need more structure or guidance, ask specific questions: "How tall is the giant? How long would her hand be?" After students have found out things about the giant, have them list their findings on posters and have them illustrate or explain how they found the measures. ELLs are likely to be more familiar with centimeters, so have students choose what measurement system they use, or have all students use centimeters. As an alternative, begin with a tiny pencil (figurine size) and consider the size of the tiny person.

Source: Adapted from Che, S. M. (2009). Giant pencils: Developing proportional reasoning. *Mathematics Teaching in the Middle School*, 14(7), 404–408.

From Van de Walle et. al. (2014). Teaching Student-Centered Mathematics Grades: Developmentally Appropriate Instruction for Grades 6 - 8 (2^{nd} Ed.). Toronto: Pearson Education, Inc. (p. 205).