

Excerpt from page 456 - Van de Walle, J. A., Karp, K. S., & Bay-Williams, J. M. (2013). Elementary and middle school mathematics: teaching developmentally. 10th ed. Boston: Pearson.

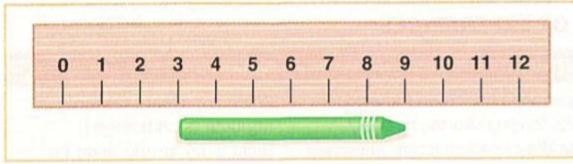


FIGURE 19.2 “How long is this crayon?”

**Using Measuring Instruments.** In the 2003 NAEP exam (Blume, Galindo, & Walcott, 2007), only 20 percent of fourth graders could give the correct measure of an object not aligned with the end of a ruler, as in Figure 19.2. At the eighth grade, only 56 percent answered the same situation accurately (Kloosterman, Rutledge, & Kenney, 2009a). These results point to the difference between using a measuring device and understanding how it works. Students on

the same exam also experienced difficulty when the increments on a measuring device were not one unit.

Excerpt from page 262 - Primary Math International, Grade 1 Teacher's Edition. Chicago: Japan Math Corporation.

**Apply**

9 How many inches long is each tape?

2 in.                      3 in.

10 Draw a line 4 in. long.

11 Look at the lines below and answer the questions.

A

B

1 How many inches are there when line A and line B are connected? 8 in.

2 What is the difference in length between line A and line B? 2 in.

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