## How to "Read" a Ruler

B. "Reading" a whole-inch measurement when the right edge of an object lies exactly on a line and its left edge is not aligned with the zero-line. (This is sometimes known as the "broken ruler" problem.)

Occasionally, people are called upon to measure an object whose left edge is not lined up with the zero-line of the ruler.

How long is this blue crayon? (It's the same blue crayon as the one on page 10.)


Here, the left edge of the blue crayon is not aligned with the zero-line of the ruler; it is aligned with the five-inch ( $5^{\prime \prime}$ ) line. This means that we have to start at the five-inch line and count off to the right:

- from 5 to 6 is the first inch ( $1^{\prime \prime}$ );
- from 6 to 7 is the second inch ( $2^{\prime \prime}$ ); and,
- from 7 to 8 -notice that the right edge of the blue crayon ends exactly at the 8 -inch line-is the third inch ( $3^{\prime \prime}$ ).


The blue crayon, from its beginning edge on the left to its ending edge on the right, is STILL three inches ( $3^{\prime \prime}$ ) long-and we shouldn't be surprised at this because only its location on the ruler changed!

