Decimals

Is it possible to translate a decimal measurement into a form that I can read on a ruler?

You can turn a decimal into a fractional equivalent with any denominator you would like. Depending upon the situation (and the kind of ruler you have) you may want 8ths, 16ths, 32nds, or even 64ths of an inch.

Example
Change 0.937 inches to an equivalent fraction with a denominator of 32.

In other words, 0.937 inches = $\frac{?}{32}$ inches.

Step 1) Make the decimal look like a fraction: $\frac{0.937}{1}$

Step 2) Multiply the fraction in Step 1) by $\frac{32}{32}$:

$$\frac{0.937}{1} \times \frac{32}{32} = \frac{0.937 \times 32}{1 \times 32} = \frac{29.984}{32} = \mathbf{\frac{30}{32}}$$

If you get a decimal answer at this point, round the result to the nearest whole number.

Example
Change 0.212 inches to an equivalent fraction with a denominator of 64.

In other words, 0.212 inches = $\frac{?}{64}$ inches.

You can follow the steps in the previous example, or you can do this quicker procedure:

Step 1) Determine the numerator of the fraction directly.
Multiply the decimal 0.212 by 64:
$0.212 \times 64 = 13.568$

Step 2) Round the answer in Step 1) to the nearest whole number and write the fraction.

13.568 rounds to 14. Write the fraction: $\mathbf{\frac{14}{64}}$

NOTE: Because we did a bit of rounding, the resulting fractions in these two examples are not *perfect* equivalents of the original decimals but they are pretty close!