

# Lesson One: Precision

Precision is the size of the smallest unit on your measurement tool. (Another definition is that it is the size of the smallest "tick" on the measuring tool.) This lesson will focus on determining precision in two ways:

- find precision from a picture of a measurement device
- find precision of a given measurement

## Finding Precision from a Picture of a Measurement Tool

Remember that precision is defined as the smallest 'tick' on a measuring tool; below are several examples of reading precision off a measuring tool.

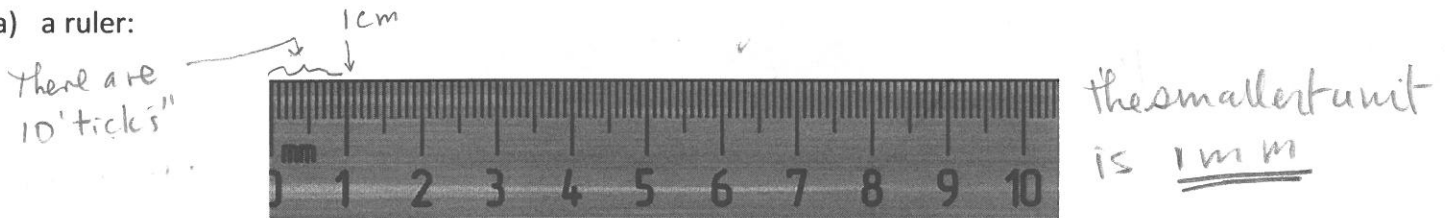
### Example 1

The precision of any measuring device can be found by using the formula:

$$\frac{\text{measurement}}{\text{\# of 'ticks' to reach measurement}}$$

Find the precision of the following:

a) a ruler:



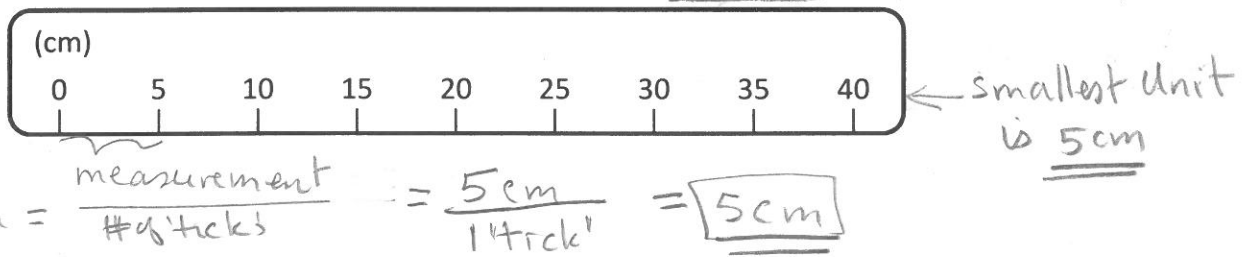
$$\text{Precision} = \frac{\text{measurement}}{\text{\# of 'ticks'}}$$

$$\text{Precision} = \frac{1 \text{ cm}}{10 \text{ 'ticks'}} = \boxed{0.1 \text{ cm}}$$

OR

$$\boxed{1 \text{ mm}}$$

b) another ruler:



$$\text{Precision} = \frac{\text{measurement}}{\text{\# of 'ticks'}} = \frac{5 \text{ cm}}{1 \text{ 'tick'}} = \boxed{5 \text{ cm}}$$