Name:_____

Significant Figures HW

1. Why are significant figures important when taking data in the laboratory?

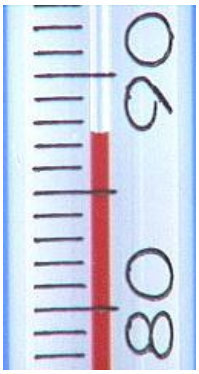
2. Why are significant figures NOT important when solving problems in your math class?

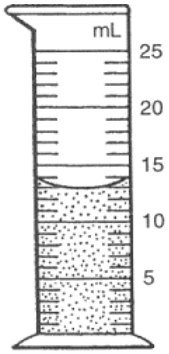
3. Using two different instruments, I measured the length of my foot to be 27 centimeters and 27.00 centimeters. Explain the difference between these two measurements.

4. State the number of significant figures in each of the following.

3.57 m	730 000 kg	0.6034 g/mL
20.040 g	12 700. mL	19.0 s
0.004 m^3	30 *atoms*	810 °C

5. Make measurements. Use the pictures on the right and show the correct number of significant figures.





_____ _____ _____

6. John is working in the lab and wants to be as accurate as possible when measuring out his chemicals. His experiment calls for <u>10ml</u> of a sodium chloride solution. Which of the following containers should be used to give him the most accurate volume? Note: Ignore the liquid levels in the containers.