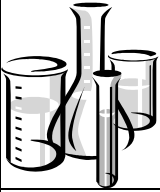


Name: \_\_\_\_\_

Date: \_\_\_\_\_

Per: \_\_\_\_\_

<i>Chemistry I</i> <b>EQ:</b> How do you speak "chemese"?	<b>Enduring Understanding</b> Resource use impacts society.
 <div data-bbox="347 279 927 388" style="text-align: center;"> <h2>Reading Thermometers and Graduated Cylinders</h2> </div>	<b>Concepts Important to Know and Understand</b> Accuracy and precision
	<b>Broad Brush Knowledge</b> Accuracy and precision
<b>Core Objectives</b> <b>2C:</b> Express and manipulate chemical quantities using scientific conventions and mathematical procedures such as dimensional analysis, scientific notation, and significant figures.	

**PURPOSE** Learn how to accurately and precisely record the temperature and volume from scientific equipment. Determine the calibration of a measuring device from the gradation scale and to appreciate the relationship between the precision of the calibrations and the number of significant digits in the measurement.

Review lessons on accuracy, precision, and scale calibration. Review lesson on significant figures.

### MATERIALS

Measuring Temperature worksheet

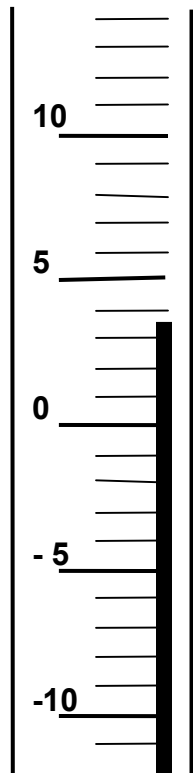
Measuring Volume by Reading Graduated Cylinders worksheet

### PROCEDURE

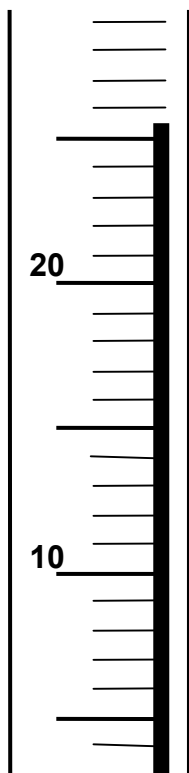
Determine the calibration of the measuring device from the gradation scale.

Accurately and precisely record the temperature and volume from each picture of scientific equipment.

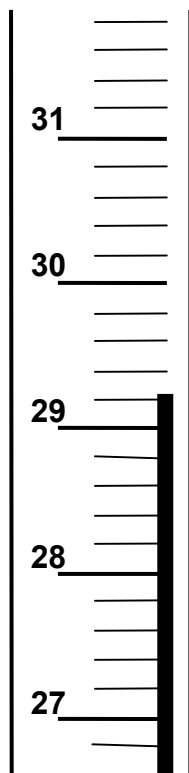
## Measuring Temperature by Reading Thermometers



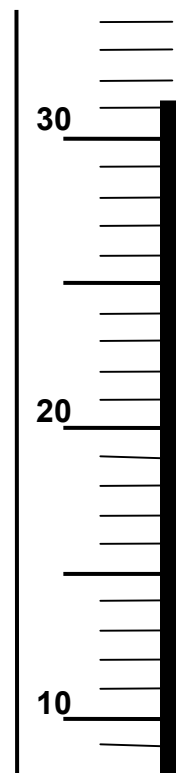
Thermometer 1



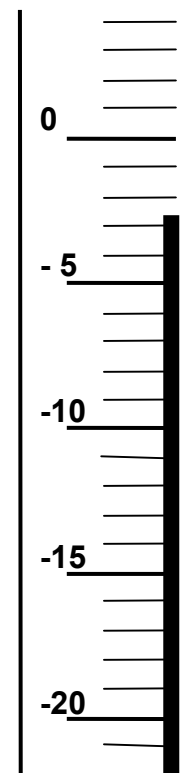
Thermometer 2



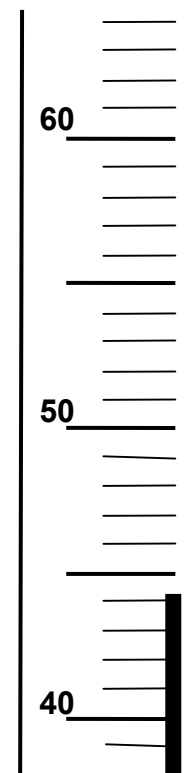
Thermometer 3



Thermometer 4



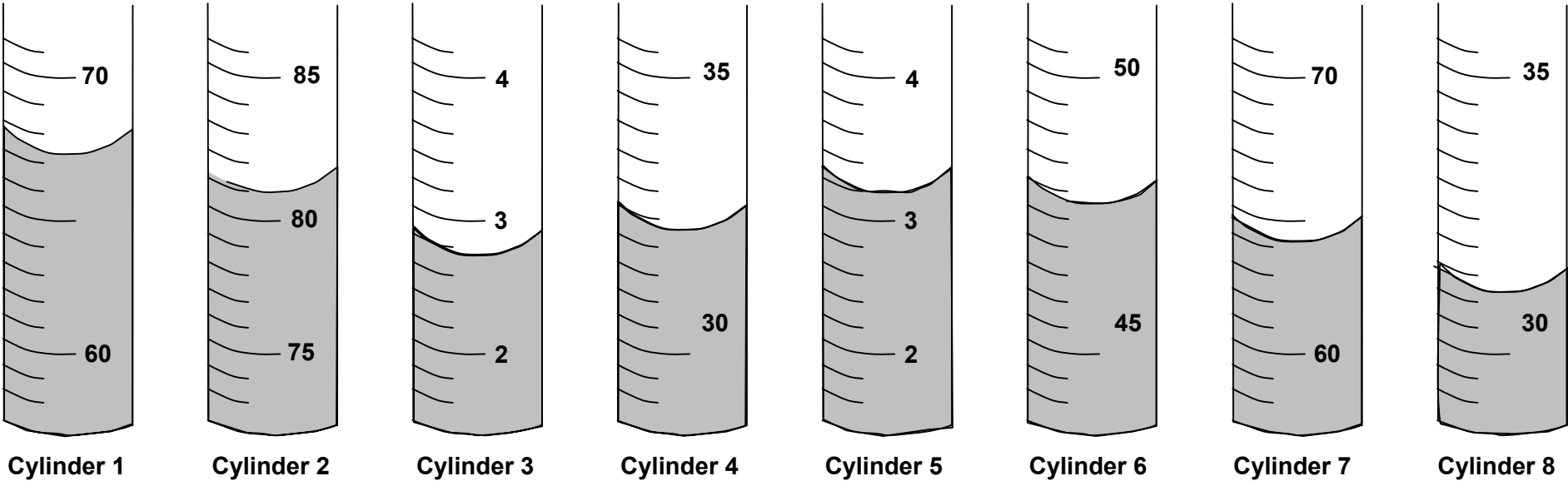
Thermometer 5



Thermometer 6

	Thermometer 1	Thermometer 2	Thermometer 3	Thermometer 4	Thermometer 5	Thermometer 6
Calibration (°C)						
$\frac{1}{2}$ of the calibration (°C)						
Temperature (°C)						

Measuring Volume by Reading Graduated Cylinders



	Cylinder 1	Cylinder 2	Cylinder 3	Cylinder 4	Cylinder 5	Cylinder 6	Cylinder 7	Cylinder 8
Calibration								
½ of the calibration								
Volume (mL)								