

**Basis of Science Review**

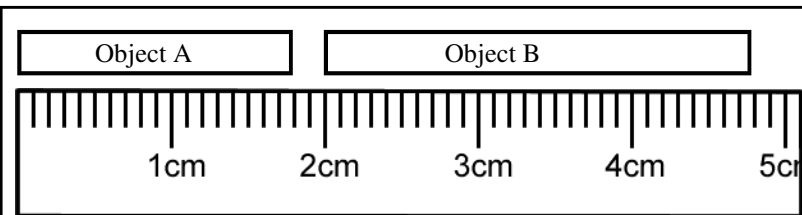
Which of these two chemicals is more hazardous to your health?  Which one is more flammable?	At-a-Glance Acetone  Health — 1 Flammability — 3 Reactivity — 2 Exposure — 1 Storage — 3	At-a-Glance Chloroform  Health — 2 Flammability — 0 Reactivity — 1 Exposure — 2 Storage — 2	<b>First Aid Measures—Chloroform</b>  <i>Call a physician, seek medical attention for further treatment, observation and support after first aid.</i> <b>Inhalation:</b> Remove to fresh air at once. If breathing has stopped give artificial respiration immediately. <b>Eye:</b> Immediately flush with fresh water for 15 minutes. <b>External:</b> Wash continuously with fresh water for 15 minutes. <b>Internal:</b> Induce vomiting. After vomiting, give mixture of 2 Tbs. of activated charcoal mixed with one cup of water. Call a physician or poison control at once.
What should you wear in the lab to protect against chemical spills?  What should you wear to protect your eyes against splashing chemicals?  What should you wear to protect your feet from chemicals and falling objects?			Use the MSDS information above to answer the following: Which section tells you what to do if someone breathed in chloroform?  Which section if someone drinks it?

Can this statement be supported by the scientific method?  
*"I chocolate chip is the best ice cream flavor."*  
 Why?

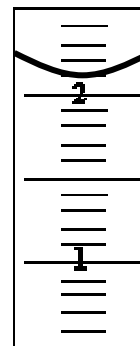
**Use the Scientific Method to figure out if a substance is a liquid or solid.** (The first step is done for you.)  
**Step 1:** Observe: *the substance changes shape.*  
**Step 2:**  
**Step 3:**  
**Step 4:**

Liquid	Color	Burns?	Volume	Reacts with Baking Soda?
A	Clear	No	35 mL	Yes
B	Clear	Yes	12 mL	No
C	Clear	No	46 mL	Yes
D	Clear	No	88 mL	No

Make a reasonable conclusion from the above data table.

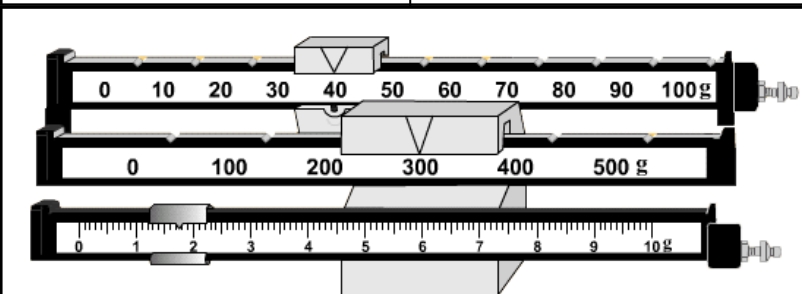


How many millimeters is object A?	How many millimeters is object B?
How many centimeters is object A?	How many centimeters is object B?
How many meters is object A?	How many meters is object B?

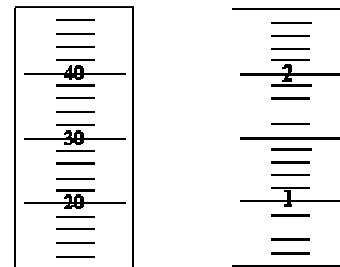


How many mL of water is there in the graduated cylinder?

What is the curve of water called?



How much mass is shown above?



Which of the two cylinders above is more precise?

Why?

How is a solid different from a liquid?	How is a liquid similar to (like) a gas?	The temperature at which a solid turns to liquid is called:
How is a solid similar to (like) a liquid?	What causes a substance to change phase?	The temperature at which a liquid turns to a gas is called:
How is a liquid different from a gas?	When a substance changes phase, is this a physical or chemical change?	The temperature at which a gas turns to liquid:
		The temperature at which a liquid turns to a solid:
		When a solid turns straight to a gas is called:
		At what temperature does water melt?
		At what temperature does water boil?

Mixture (M) versus Substance (S) (non-mixture):	1. Substance or non-mixture	a. Made up of two types of matter that can be physically separated.
Salt Water _____ Chicken Soup _____	2. Mixture	b. Two samples might not be the same.
Water _____ Salt _____	3. Heterogeneous Mixture	c. Two samples will have the same makeup.
Silver _____ Chex Mix _____	4. Matter	d. Has only one kind of atom in the sample.
Homogenous (Ho) versus Heterogenous (He)	5. Element	e. Contains two kinds of atoms that <i>cannot</i> be physically separated.
Salt Water _____ Chicken Soup _____	6. Homogeneous Mixture	f. Cannot be separated by physical means.
Tomato Soup _____ Plain Jello _____	7. Compound	g. A classification of anything that has mass and takes up space.
Jello with Fruit _____ Chex Mix _____		
What do we call things that can be felt and seen, but we cannot touch and has no mass?	What do we call things that can be felt and seen, but we cannot touch and has no mass?	

<i>Draw the metric prefixes chart here:</i>		
<p><i>What is the correct order shortest to longest?</i></p> <p>Kilogram milligram Megagram gram centimeter microgram</p> <p>_____</p>		<p>Convert the following</p> <p>3.2 kilometers = _____ meters</p> <p>0.23 centimeters = _____ micrometers</p> <p>0.12 liter = _____ milliliters</p> <p>2500 milliliters = _____ liters</p> <p>4500 grams = _____ kilograms</p> <p>9 kilograms = _____ grams</p> <p>54 megaliters = _____ centiliters</p>
<p><i>Which is bigger?</i></p> <p>Mega- or kilo-?</p> <p>Centi- or milli-?</p> <p>Micro- or milli-?</p> <p>Centi- or micro-?</p> <p>Kilograms or grams?</p>	<p><b>How Big Are They Really?</b></p> <p>A centimeter is the width of:</p> <p>The size of a liter is:</p> <p>A meter is how many feet?</p> <p>A gram is about:</p> <p>A millimeter is the width of:</p>	