

Name: _____
 Period: _____

Basis of Science Test Part I Test Review

All sections marked with a are considered essential concepts and must be completed to receive full credit on WS.

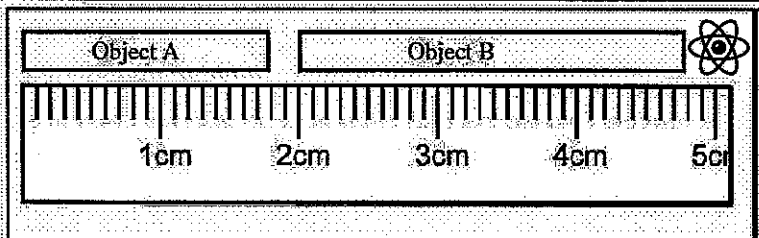
Which of these two chemicals is more hazardous to your health? <i>Chloroform</i> <i>higher #2)</i> Which one is more flammable? <i>Acetone</i>	At-a-Glance Acetone Health — 1 Flammability — 3 Reactivity — 2 Exposure — 1 Storage — 3	At-a-Glance Chloroform Health — 2 Flammability — 0 Reactivity — 1 Exposure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

Can this statement be supported by the scientific method?
 "Chocolate chip is the best ice cream flavor."
 Why? *no, opinion*

Use the Scientific Method to figure out if a substance is a liquid or solid. (The first step is done for you.)
 Step One: Observe: the substance changes shape.
 Step Two: *hypoth: the substance is a liquid*
 Step Three: *exp: Does it change volume?*
 Step Four: *Data: No*
 Step Five: *concl: Substance must be liquid*

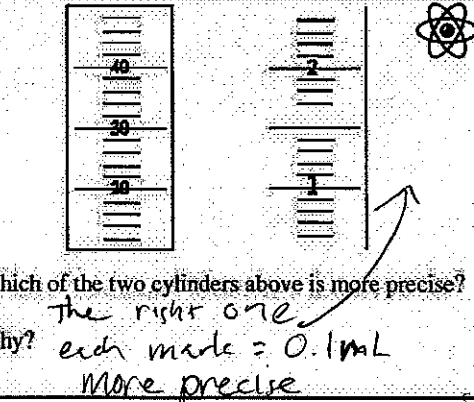
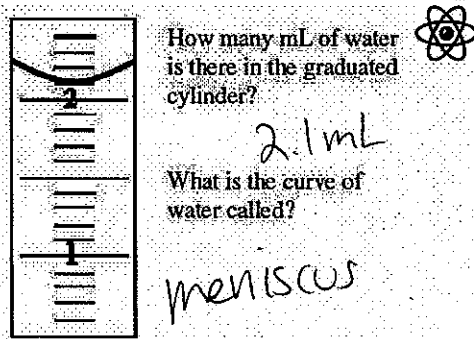
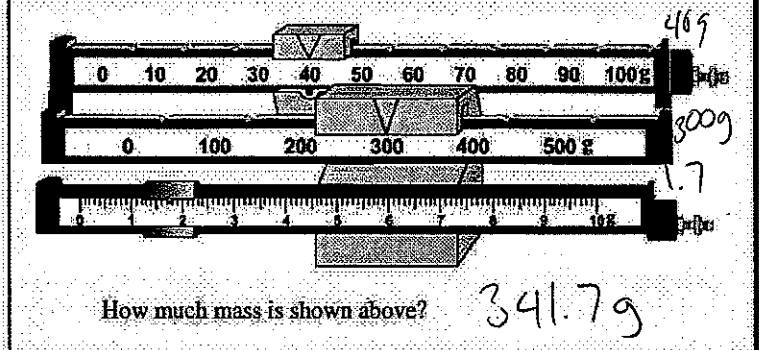
Liquid	Color	Burns?	Volume	Reacts with Baking Soda?
A	<i>Clear</i>	<i>No</i>	35 mL	<i>Yes</i>
B	Clear	Yes	12 mL	No
C	<i>Clear</i>	<i>No</i>	46 mL	<i>Yes</i>
D	Clear	No	88 mL	No

Make a reasonable conclusion from the above data table.
Liquids A & C are the same liquid



How many millimeters is object A? *18 mm*
 How many centimeters is object A? *1.8 cm*
 How many meters is object A? *0.018 m*

How many millimeters is object B? *28 mm*
 How many centimeters is object B? *2.8 cm*
 How many meters is object B? *0.028 m*



Draw the metric prefixes chart here:

M — K H D h d c m — μ

What is the correct order shortest to longest?

Kilogram milligram Megagram gram centimeter microgram

μg mg cm g Kg Mg

Convert the following

3.2 kilometers = 3,200 meters

0.23 centimeters = 0.00023 micrometers

0.12 liter = 120 milliliters

2500 milliliters = 2.5 liters

4500 grams = 4.5 kilograms

9 kilograms = 9,000 grams

54 megaliters = 5,400,000,000 centiliters

Which is bigger?

Mega- or kilo-?

Centi- or milli-?

Micro- or milli-?

Centi- or micro-?

Kilograms or grams?

How Big Are They Really?

A centimeter is the width of a pencil

The size of a liter is bigger than a quart

A meter is how many feet? 3.3 ft

A gram is about: a dollar bill

A millimeter is the width of: finger nail

Do the following conversions. Given: 1 m = 2.54 cm; 3.3 ft = 1 m; 12 in = 1 ft; 5,280 ft = 1 mi (mile)

A. Convert 3.5 miles to feet

$$\frac{3.5 \text{ mi}}{1 \text{ mi}} \times \frac{5280 \text{ ft}}{1 \text{ mi}} = 18,480 \text{ ft}$$

B. Convert 6 ft to meters

$$\frac{6 \text{ ft}}{3.3 \text{ ft}} \times \frac{1 \text{ m}}{1 \text{ m}} = 1.82 \text{ m}$$

C. Convert 2.5 weeks to days

$$\frac{2.5 \text{ wk}}{1 \text{ wk}} \times \frac{7 \text{ day}}{1 \text{ wk}} = 17.5 \text{ days}$$

D. Convert 2500 seconds to minutes

$$\frac{2500 \text{ sec}}{60 \text{ sec}} \times \frac{1 \text{ min}}{1 \text{ min}} = 41.7 \text{ min}$$

E. Convert 18 m/sec to m/min

$$\frac{18 \text{ m}}{1 \text{ s}} \times \frac{60 \text{ s}}{1 \text{ min}} = 1080 \frac{\text{m}}{\text{min}}$$

F. Convert 60 mph (miles) to m/hr (meters)

$$\frac{60 \text{ mi}}{\text{hr}} \times \frac{5280 \text{ ft}}{1 \text{ mi}} \times \frac{1 \text{ m}}{3.3 \text{ ft}} = 96,000 \frac{\text{m}}{\text{hr}}$$