

General Chemistry Review Concepts for Unit 2
FACTS FOR THE UNIT 2 EXAM

1. The symbol for a kilogram of mass is kg.
 2. The best measure of a quantity of matter is MASS.
 3. To calculate the Density of a material you divide its mass by its volume.
 4.

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|-------------------------|-------------------------|
| Physical Changes | Chemical Changes |
| bending | burning |
| tearing | corrosion |
| boiling | rusting |
| freezing | decaying |
| dissolving | forming new substances |
 5. You use a GRADUATED CYLINDER to find the volume of an irregularly shaped object.
 6. A BALANCE is used to find the mass of an object in any lab?
 7. Anywhere in the universe a particular sample of a given substance will have the same mass, because MASS NEVER CHANGES.
 8. A kilogram is how 1000 grams?
 9. A graduated cylinder contains 5.6 mL of water. An object is dropped into the graduated cylinder which then reads 8.7 mL. What is the volume of the object? You find the answer to this problem by subtracting 5.6 from 8.7. You also need to know that 1 ml is equal to 1 cm³
 10. The capacity to do work is called ENERGY
 11. The amount of heat needed to raise the temperature of 1 gram of water by 1 Celsius degree is called a CALORIE
 12. The SI unit of energy is the JOULE
 13. The SI standard for temperature for temperature is the KELVIN scale
 14. Celsius and Kelvin temperature scales have the same size degrees
 15. To convert Kelvin degrees to Celsius degrees use the equation $K = C + 273$
 16. Absolute zero is the point of minimum kinetic energy of molecules, although some books say it is the point when molecular motion stops.
 17. Anything that has mass and volume is called a SUBSTANCE.
 18. The state of matter which is characterized by definite volume but lack of definite shape is a LIQUID
 19. The SI base unit for mass is the KILOGRAM
 20. Even if an object is weightless, it still has mass
 21. A milliliter is the same volume as a cubic centimeter (cm³)
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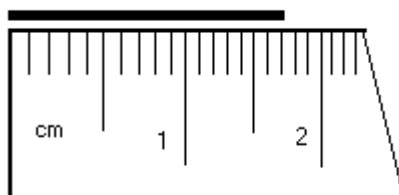
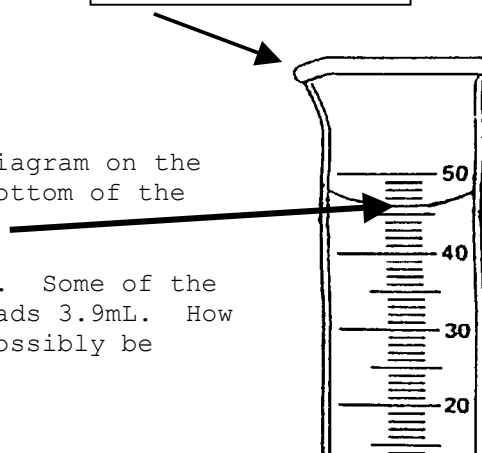
22. The instrument used to measure liquid volume is a Graduated Cylinder

23. 1/1000 of a meter is a millimeter

24. There are 1000 meters in a kilometer

25. The volume of water in the cylinder in the diagram on the right is 46 ml. You read the volume to the bottom of the curved surface which is called the meniscus

26. A graduated cylinder contains 8.7mL of water. Some of the water is poured out and the cylinder then reads 3.9mL. How much water was poured out? How could that possibly be hard? You just subtract $8.7 - 3.9$



27. You might determine the length to be 1.7 cm, but someone else might think it was a bit longer and would read it as 1.71 cm or even 1.72 cm.

28. The symbol "mL" stands for a unit of volume