Final Exam Review: Chp 2,3 & 4 **ec completion/printing: 5 pts**

1-10 Identify the following as :

a) Physical Change **b)** Chemical Change

___1. Sodium hydroxide dissolves in water

___2 Hydrochloric acid reacts with sodium hydroxide to produce a salt, water & heat.

___3. A pellet of sodium is sliced in two

___4. Water is heated and changed into steam.

___5. Potassium chlorate decomposes to potassium chloride and oxygen gas

___6. Iron rusts

___7. Ice melts

___8. Acid on limestone produces carbon dioxide gas.

___9. Milk sours

___10. Wood rots

11-25 Identify the following as :

a) Physical Property **b)** Chemical Property

___11. red color

___12. density

___13. flammability

___14. solubility

__15. reacts with acid to form hydrogen

___16. bitter taste

___17. melting point

___18. reacts with water to form a gas

___19. combustible

___20. conductivity

___21. hardness

___22. boiling point

___23. malleability

___24. odor

___25. reacts with a base to form water

DEFINITIONS: USE CHOICES A-E BELOW FOR QUESTIONS 26-30
Use them only once.

A. This is the amount of matter in an object and is always constant
B. this is the amount of space the object occupies
C. this is a measure of the gravitational force, and it will change, depending on where the object is located away from Earth
D. this is the amount of mass in a given volume
E. mass is a measure of this

___26. Define: weight

___27. Define: mass

___28. Define: density

___29. Define: inertia

___30. Define: volume

USE CHOICES A-E BELOW FOR QUESTIONS 31-35 Use them only once.

A: definite volume, not a definite shape
B: no definite shape or volume
C: approaches absolute zero
D: particles that are broken apart, and do not have a definite shape or volume
E: definite shape and definite volume

___31. A solid state has:

___32. A liquid state has:

___33, A plasma state has:

___34. A gas state has:

___35. A Bose Einstein state

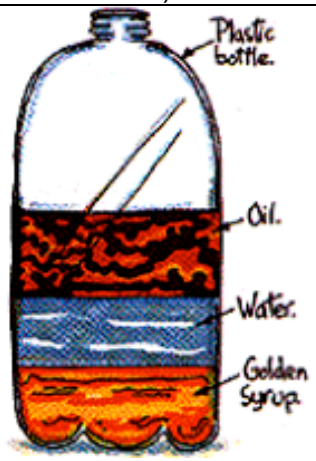
36. A solid object floats in water when it is:
a. light b. heavy c. more dense than water. d. less dense than water

37. Density is:
a) the tendency of all objects to resist change c) a force of attraction between objects
b) the amount of matter in a given volume d) the amount of space an object takes up

38. The density of water is:
a) 0.1 g/cm^3 b) 1 g/cm^3 c) 10 g/cm^3 d) it changes constantly

39. The equation for density is:
a) V = D/m b) D=m/V c) D=V/m d) M=V/D e) none of these

40. Why does a golf ball feel heavier than a tennis ball?
a) it is denser b) it has more volume c) it has less mass d) all of the above

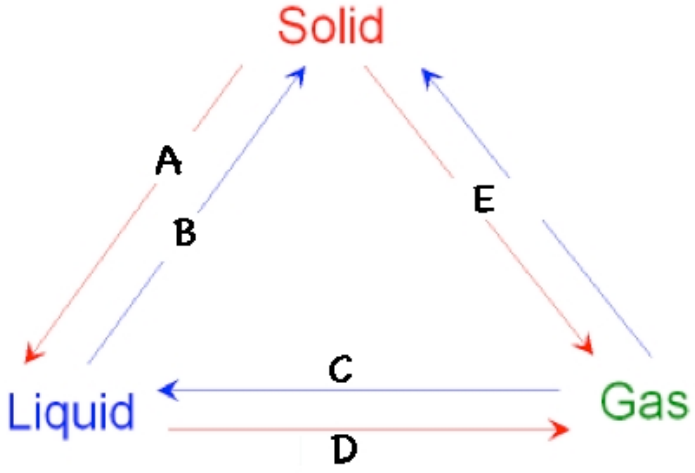


41-50 : A: TRUE B: FALSE : use the drawing on the left

41. Oil is the most dense liquid in the bottle.
42. Water is more dense than syrup
43. Water is more dense than oil
44. Oil is more dense than syrup
45. golden syrup is the most dense liquid in the bottle
46. oil's density is more than 1 g/cm3
47. oil's density is less than 1 g/cm3
48. water's density is more than 1 g/cm3
49. syrup's density is less than 1 g/cm3
50. syrup's density is more than 1 g/cm3

Use the letters on the triangle to the right to match their state of matter listed below:

51. Boiling
52. Melting
53. Condensation
54. Sublimation
55. Freezing



match the definition at the right:

56. Solid
57. Liquid
58. Gas
59. Plasma
60. Bose-Einstein Condensate

use only once:

a) exists at high temperatures
b) definite volume, definite shape
c) exists at very low temperatures
d) definite volume , no definite shape
e) no definite volume, no definite shape

MATCH THE DEFINITION Write the letter

61. **nonmetals: _____** 62. **solubility: _____** 63. **suspension: _____** 64. **concentration: _____** 65. **alloys: : _____** 66. **colloid: : _____** 67. **element: : _____** 68. **solvent: : _____** 69. **solute: : _____** 70. **metalloids: : _____** 71. **mixture: : _____** 72. **solution: _____** 73. **compound: : _____** 74. **metals: _____** **75.** pure substance:____	A. elements that are shiny and are good conductors of thermal and electrical energy. Most are malleable and ductile B. a pure substance composed of two or more elements that are chemically combined C. a substance in which there is only one type of particle; includes elements and compounds D. elements that have properties of both metals and nonmetals; sometimes referred to as semiconductors E. a combination of two or more substances that are not chemically combined F. a pure substance that can not be separated or broken down into simpler substances by physical means G. elements that are dull (not shiny) and that are poor conductors of thermal and electrical energy H. a mixture in which particles of a material are dispersed throughout a liquid or gas but are large enough that they settle out I. a mixture in which the particles are dispersed throughout but are not heavy enough to settle out J. a measure of the amount of solute dissolved in a solvent K. solid solutions of metals or nonmetals dissolved in metals L. the ability to dissolve in another substance M. the substance in which a solute is dissolved to form a solution N. a mixture hat appears to be a single substance but is composed of particles of two or more substances that are distributed evenly amongst each other O. the substance that is dissolved to form a solution

Match the properties listed to the right to one of these **a. mixtures** **b. compounds**	76. : _____components keep their original properties 77. : _____ components lose their original properties 78. : _____ separated by physical means 79. : _____separated by chemical means 80 : _____tossed salad 81. : _____ sugar water 82. : _____ pizza

Choose from these answers (use only once) a. heterogeneous matter b. homogeneous matter c. solution d. substances	83 _____ Elements & compounds are classified as _____. 84. _____ A(n) _____ is not a substance but is homogeneous. 85. _____ _____ is made of two or more different materials that are not distributed evenly throughout each other 86. _____ _____ is any matter that is the same throughout.

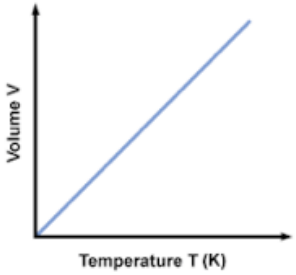
87. Liquid ------→ gas Is this change of state : a. endothermic b. exothermic

88. Solid ------→ gas What is the change of state? a. condensation b. sublimation c. vaporization d. melting

89. Gas ------→ liquid Is this change of state : a. endothermic b. exothermic

90. The drawing to the right represents whose law?

91. The graph to the right represents whose law??



Choose from the list below what is being pictured to the right

b. mixture
c. element
d. compound
a. suspension
e. none of these choices

92.

93.

94.