A. Fill in the blanks in the following definitions:

(3) 1. **Atom**: The _____ _____ unit of _____

(5) 2. **Molecule**: _____ or more _____ linked together to make a

_____ with _____ _____

(3)3. **Concentration**: The _____ of a substance _____ a

certain _____

(6)B. Fill in the following chart:

Prefix	Numerical meaning (in fraction or decimal form)
Milli (m)	4.
Centi (c)	5.
Kilo (k)	6.

(8)C. Choose base units from the word bank below to show what each measures:

Foot (ft)	Gram (g)	Meter (m)	Second (s)
Gallon (gal)	Liter (l)	Second (s)	Slug (sl)

Physical quantity	Base metric unit	Base English unit
Volume	7.	8.
Time	9.	10.
Mass	11.	12.
Distance/length	13.	14.

D. Fill in the blanks with the correct answers. Use the space to the right or on back to show your work:

(2)15.   629 centimeters = _____ meters.
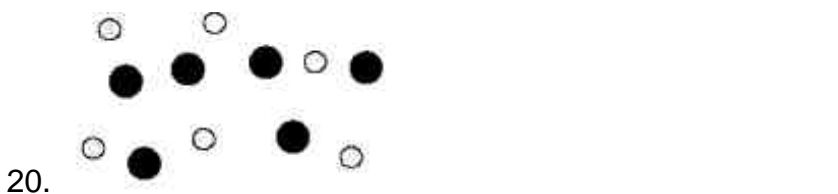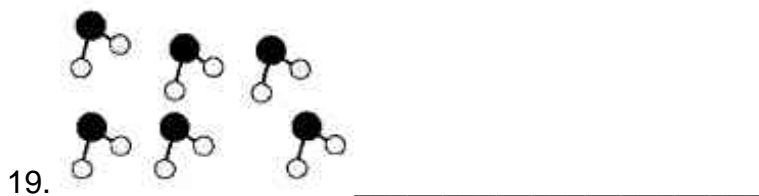
(2)16.   68.9 kilograms = _____ grams.

(2)17.   45 milliliters = _____ liters.

(2)18.   20 feet = _____ inches (1 foot = 12 inches)

(2)19.   21 yards = _____ feet   (1 yard = 3 feet)

(4)E. Identify each illustration as "atoms" or "molecules":

19.   _____

20.   _____

(4)21. I need a powerful bathroom cleaner that uses hydrochloric acid (HCl) as its main active ingredient. How can I be certain which cleaner is the most powerful before buying? Circle the letter of the correct answer.

        a. Look at the size of the bottle (ounces of cleaner in the bottle)
        b. Look at the amount of HCl in each bottle (ounces of HCl in the bottle)
        c. Look at the percentage of HCl in each bottle (ounces of HCl out of total ounces of liquid)
        d. Look at the advertising claims on the shelf

(2)22.   You decide to combine two elements to make molecules. Will the new substance have all the same properties as the elements you started?

(up to 4 points) Bonus: What is the difference between weight and mass?