1. Classify each of the following as elements (E), compounds (C) or Mixtures (M). Write the letter X if it is none of these.

|  |  |  |
| --- | --- | --- |
| \_\_Diamond (C)  \_\_Sugar (C6H12O6)  \_\_Milk  \_\_Air  \_\_Sulfuric Acid (H2SO4)  \_\_Gasoline  \_\_Krypton (K)  \_\_Bismuth (Bi)  \_\_Uranium (U) | \_\_Water (H2O)  \_\_Alcohol (CH3OH)  \_\_Pail of Garbage  \_Ammonia (NH3)  \_\_Salt (NaCl)  \_\_Energy  \_\_Wood  \_\_Bronze  \_\_Ink | \_\_Dry Ice (CO2)  \_\_Baking Soda (NaHCO3)  \_\_Titanium (Ti)  \_\_Iron (Fe)  \_\_Popcorn  \_\_Gold (Au)  \_\_Electricity  \_\_A dog  \_\_Concrete |

1. Match each diagram with its correct description. Diagrams will be used once.

**A B C D E**

\_\_ Pure Element – only one type of atom present.

\_\_ Mixture of two elements – two types of uncombined atoms present.

\_\_ Pure compound – only one type of compound present.

\_\_ Mixture of two compounds – two types of compounds present.

\_\_ Mixture of a compound and an element.

1. Read each description and determine whether it is a pure substance or mixture. Then further classify the matter (element, compound, homogeneous mixture, heterogeneous mixture)

|  |  |  |
| --- | --- | --- |
| **Description** | **Pure Substance**  **or Mixture?** | **Classification?** |
| 1. Chocolate syrup is added to milk and stirred |  |  |
| 2. Copper metal (used to make wires) |  |  |
| 3. Sand is added to water |  |  |
| 4. Distilled water |  |  |
| 5. Tap water |  |  |
| 6. Diamond |  |  |
| 7. Table sugar |  |  |
| 8. Table sugar added to a cup of coffee and stirred |  |  |
| 9. Kool-aid is added to water |  |  |
| 10. Coca-cola |  |  |
| 11. Helium gas (used to inflate a balloon) |  |  |
| 12. Mercury metal (used in old thermometers) |  |  |
| 13. Hydrogen gas (an explosive gas) |  |  |
| 14. Trail mix (peanuts, pretzels and m&m's) |  |  |
| 15. The air webreathe |  |  |