

Application Questions Chapter 1

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1. What is the difference between a pure substance and a mixture? Give two examples of each. 5pts

Pure substances are further broken down into elements and compounds; Examples: sulfur and sucrose. Mixtures are physically combined structures that can be separated into their original components; Examples: tossed salad and salt water.

2. What is the difference between a homogeneous mixture and a heterogeneous mixture? Give two examples of each. 5pts

Homogeneous mixture is a solid, liquid or gas mixture that has the same proportions of its components; Examples: air and saline solution. Heterogeneous mixture has components in which proportions vary throughout the sample; Examples: salt and pepper.

3. What is the difference between a physical change and a chemical change? Give at least two examples of each. 5pts

Chemical change results from a chemical reaction; Examples: burning and rusting. Physical change is when matter changes form but not chemical identity; Examples: shredding and boiling.

4. Explain the difference between **accuracy** and **precision**. 5pts

Accuracy describes the difference between the measurement and precision describes the variation you see when you measure the same part repeatedly with the same device.