**Reviewing Pure Substances and Mixtures Pre-Assessment**

1. Determine whether the substances listed in the table below are pure substances (P) or mixtures (M).
Two examples are provided.

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| \_\_\_\_\_\_\_\_\_ gold (Au)**P** | \_\_\_\_\_\_\_\_\_ Kool-Aid**M** | \_\_\_\_\_\_\_\_ bronze |
| \_\_\_\_\_\_\_\_ water (H2O) | \_\_\_\_\_\_\_\_ copper (Cu) | \_\_\_\_\_\_\_\_ pyrite (FeS2) |
| \_\_\_\_\_\_\_\_ brass | \_\_\_\_\_\_\_\_ titanium (Ti) | \_\_\_\_\_\_\_\_ 6al-4v |

1. Read the description below. Predict whether the described substance is a pure substance or a mixture. Write your prediction and explanation in the space provided.

*A substance composed of approximately 6% aluminum, 4% vanadium and 80% titanium is used as a turbine within a jet engine because of its ability to sustain extreme heat and to resist corrosion.*

Prediction: \_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Explanation:

1. Copper is frequently mixed with other elements. What do you believe is the advantage of using a copper mixture rather than using pure copper?