

1. Which of the following most likely contains a pure substance?
 - a. sugar (sucrose)
 - b. iodized salt
 - c. milk
 - d. window cleaner
 - e. household bleach

2. Gold (Au) is classified as a:
 - a. Element
 - b. Compound
 - c. Heterogeneous mixture
 - d. Homogeneous mixture

3. Water (H₂O) is classified as a:
 - a. Element
 - b. Compound
 - c. Heterogeneous mixture
 - d. Homogeneous mixture

4. The physical transition from a gas directly to a liquid is called:
 - a. Evaporation
 - b. Condensation
 - c. Melting
 - d. Freezing
 - e. Sublimation
 - f. Deposition

5. The physical transition from a solid directly to a gas is called:
 - a. Evaporation
 - b. Condensation
 - c. Melting
 - d. Freezing
 - e. Sublimation
 - f. Deposition

6. Classify each of the following as exact numbers (E) or measured numbers (M):
 - a. ___ Water boils at 212°F.
 - b. ___ The classroom contains 75 chairs.
 - c. ___ The density of mercury is 13.6 g/mL
 - d. ___ 1 meter = 1,000,000 micrometers.

7. How many significant figures are in each of the following numbers?
- a. 2.040 cm _____
 - b. 2.30×10^{-3} kg _____
 - c. 0.0084 mL _____
 - d. 100. K _____
 - e. 100 K _____
8. What is the sum of $0.001 + 3.25 + 11.2$? Express your answer to the correct number of significant digits, assuming that you measured each number in a lab.
9. Convert your height from inches to centimeters or from centimeters to inches.
(Start with the units in which you usually think of your height.)
(Reminder: In chemistry classes, you need to show your work every time you need to calculate something.)
10. What is your height in gigameters?
11. What is your height in miles?