

Chapter 1 Worksheet

What is matter?

List an example of a homogeneous and heterogeneous mixture:

What is an intensive property? Provide examples:

What is an extensive property? Provide examples:

Give an example of a physical change and a chemical change:

What are significant figures?

What are the rules for sig figs?

Identify the number of significant figures:

432

0.00789

10100

3.040

7.5×10^3

120.00

560,000.

10^2

Write each number given using exactly the number of significant figures specified:

1. Rewrite 2543 with 2 sig figs: _____

2. Rewrite 7.4368 with 3 sig figs: _____

3. Rewrite 120,000 with 4 sig figs: _____

Provide answers with the correct number of sig figs for following questions:

What is $12.35 \text{ mL} + 7.2 \text{ mL} + 0.678 \text{ mL}$?

Calculate: $4.56 \text{ cm} \times 2.3 \text{ cm} \times 0.123 \text{ cm}$

Convert the following problems:

0.00042 liters to milliliters

6700 milligrams to grams

35 meters to inches

What is 83° F converted into Celsius and Kelvin?

What is 492K converted into Celsius and Fahrenheit?

Solve for density:

A solution has a mass of 250.0 g and a volume of 200.0 mL. What is its density?