

Worksheet 9/20/2023

1) Earth's mass is 6.0×10^{24} kilograms. Its volume is 1.1×10^{12} cubic kilometers. Find the density of Earth (mass/volume) in units of grams per cubic centimeter.

2) The universe is estimated to be about 14 billion years old. What is its age in seconds?

3) State the number of significant digits and the implied precision of the following numbers.

8234

923.12

800

0.003

7.435 mi

350,000 years

4) Round the number 123,553.6734

to the nearest one

to the nearest ten

to the nearest hundred

to the nearest thousand

to the nearest tenth

to the nearest hundredth

5) Carry out the indicated operations and give your answer with the specified number of significant digits.

23×12.4 ; 3 significant digits

$988 \div 10.3$; 2 significant digits