

1 mile = 1.61 km
2.2 lbs = 1 kg

Name: _____

Chemistry: Unit I- Mathematical Skills- Review (Practice Exam)

Perform the following conversions (Show Work!!!):

1) 11.2 kg = _____ mg

2) .35 km = _____ cm

3) 9.4×10^{11} mg = _____ lbs

4) 2.5×10^{10} sec = _____ days

5) A hiker plans a trip that is **42.1 km** through the Rocky Mountains. How many **millimeters** will the hiker be traveling?

6) A biker has their top speed measured at **16.7 meters per second**. How fast is the biker going in **miles per hour**?

Change the following into or out of scientific notation (keeping all significant figures):

7) 742,000,000,000 = _____

9) .00231 = _____

8) 30,456 = _____

10) .000000061 = _____

11) 5.4×10^{-4} = _____

12) 8.11×10^5 = _____

Perform the following calculations and record your answers with the correct number of significant figures:

13) $(4.2 \times 10^5) * (6.50 \times 10^2)$ = _____

14) $(3.17 \times 10^{-4}) * (1.12 \times 10^8)$ = _____

15) $(6.22 \times 10^{12}) / (2.7 \times 10^8)$ = _____

16) $(5 \times 10^4) / (8.2 \times 10^{-6})$ = _____

17) 5.213 + 3.00 = _____

18) 71 + 1,000,001 = _____

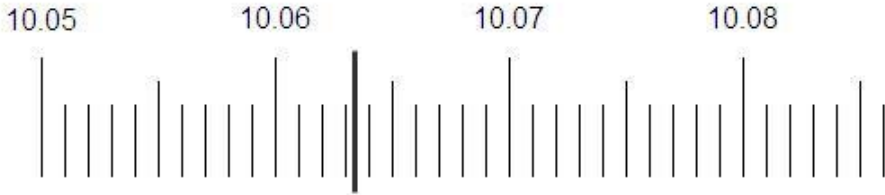
19) 4.09 – 0.711 = _____

20) 18,500 – 68 = _____

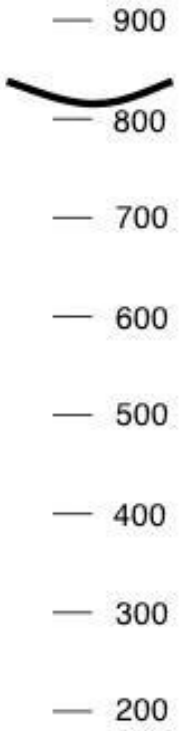
21) How can a set of measurements be **precise** but not **accurate**?

22) How are **accuracy** and **precision** different when it comes to measurement?

23) Given each of the diagrams below, measure them as accurately as possible:

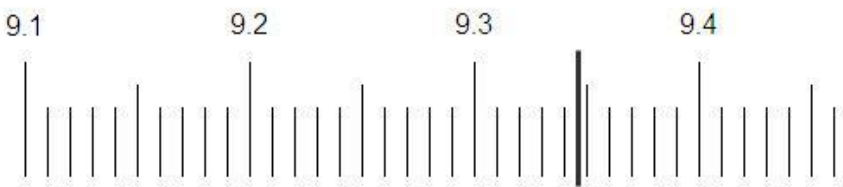


21) _____

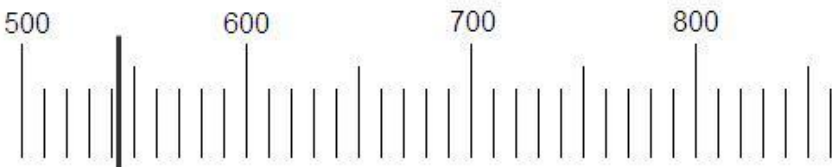


22) _____

23) _____



24) _____



25) _____