

General Chemistry
Mr. MacGillivray
Quiz #2:
Units, Prefixes, and Measurement

Circle the larger quantity in each pair.

1. 1 kg or 1 g

2. 1 ml or 1 liter

3. 1 m or 1 cm

4. 1 mm or 1 cm

5. 1 dm³ or 1 dL
that's one liter! *that's one tenth of a liter!*

Match each unit with the proper quantity by writing the appropriate letters in the blanks.

6. F Heat

a. g/ml

7. B Temperature

b. Kelvin or °C

8. E Volume

c. meter

9. G Mass

d. newton

10. C Length

e. liter

11. D Weight

f. J or cal

12. A Density

g. kg

Indicate how many significant figures there are in each measurement.

13. ~~2~~ 2 0.034 m

16. 3 34.0 × 10⁶ m

14. 4 34.00 m

17. 4 0.03400 m

15. 3 34.0 m

18. 2 340 m

Solve each problem and report the answer to the correct number of sig figs.

19. 7.00 m × 6.00 m = 42.0 m²

20. 7.00 m + 6.00 m = 13.00 m

*** (Continued on next page.) ***

Examine the following data collected for the determination of the density of an unknown substance. The accepted value is 4.509g/cm^3 ,

Table 1. Density in g/mL

	Group 1	Group 2	Group 3
	4.50	4.00	2.00
	4.50	4.02	7.00
	4.49	4.03	4.00
	4.51	4.03	3.00
AVG	4.50	4.02	4.00

Briefly discuss (one sentence) the accuracy and precision of each group.

21. Group 1 Accuracy is good and precision is good.

22. Group 2 Accuracy is poor but precision is good.

23. Group 3 Neither accuracy nor precision is good.

24. Report the volume of the liquid in the graduated cylinder at right. Use the correct number of significant figures in your answer.

Answer = 1.70 ml

or 1.69

or 1.71 etc.

Note: "1.7" is incorrect due to incorrect # of sig figs.

Always record volume to one more decimal place than is shown on instrument.

