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. (1m) or 1 cm

4. 1 mm or (1 cm)

5. (1 dm^3) 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
7. B Temperature
8. E Volume
9. G Mass
10. C Length
11. D Weight
12. A Density

a. g/ml
b. Kelvin or °C
c. meter
d. newton
e. liter
f. J or cal
g. kg

Indicate how many significant figures there are in each measurement.

13. 2 0.034 m
14. 4 34.00 m
15. 3 34.0 m
16. 3 34.0×10^6 m
17. 4 0.03400 m
18. 2 340 m

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

19. 7.00 m x 6.00 m = 42.0 m^2
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 4.50 g/cm³.

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.

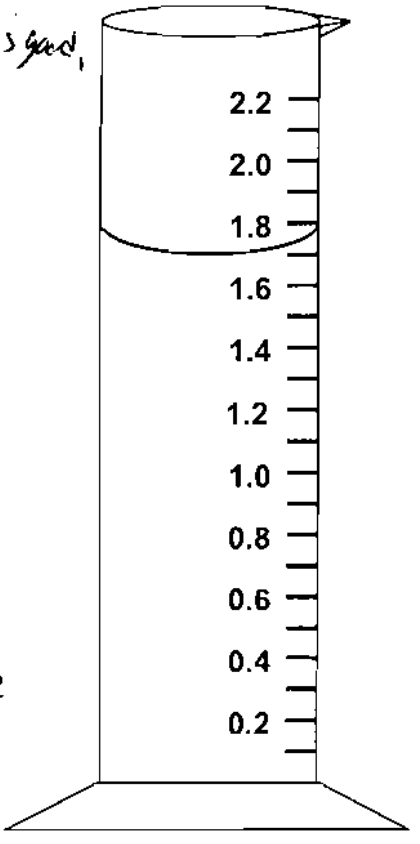
23. Group 3 Neither accuracy nor precision is good.

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.